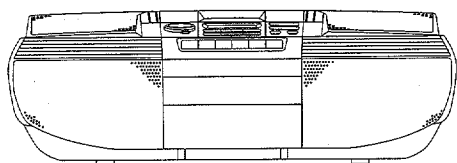


aiwa



CSD-ED88 CSD-ED89 CSD-ED99



COMPACT DISC STEREO
RADIO CASSETTE RECORDER

- BASIC TAPE MECHANISM : TN21ZVC-1816, TN51RV-240
- BASIC CD MECHANISM : KSM-213CDM

- TYPE : 88:<LH>, 99:<HR,EZ>
89:<HA,HR,LH,EZ>

REVISION PUBLISHING

- This Service Manual is the "Revision Publishing" and replaces "Simple Manual", CSD-ED88/89 (88 : <LH>, 89 : <HA,HR,LH,EZ>) S/M Code No. 09-993-409-2T2 and CSD-ED99 <HR,EZ> S/M Code No. 09-993-409-2T3.

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SPECIFICATIONS

Tuner section

Frequency range

FM :

87.5 MHz - 108 MHz

Antenna : Rod antenna

AM<HA,HR,LH> :

530/531 kHz - 1,710/1,602 kHz
(10/9 kHz/step)

Antenna : Ferrite bar antenna

MW<EZ> :

522/530 kHz - 1,611/1,710 kHz
(9/10 kHz/step)

Antenna : Ferrite bar antenna

LW<EZ> :

153 kHz - 288 kHz

Antenna : Ferrite bar antenna

Deck section

Track format

4 tracks, 2 channels

Frequency range

Normal tape : 50 Hz-12,500 Hz

(EIAJ)

Recording system

AC bias

Erasing system

Magnet erase

Heads

Recording/Playback head x 1/
erase head x 1

CD player section

Disc

Compact disc

Scanning method

Non-contact optical scanner
(semiconductor laser)

General

Speaker

100 mm cone type (2),

36 mm cone type (2)

Output

Headphones jack (stereo mini-jack)

Power output

5.0 W + 5.0 W

(DIN MUSIC POWER)<EZ>

4.5 W + 4.5 W <HA,HR,LH>

(EIAJ 3.2 ohms, T.H.D. 10%)

3.3 W + 3.3 W <HA,HR,LH>

(DIN 1% Rated Power)

Power requirements

DC 12 V using eight R14 (size C) batteries,

AC 110 - 120 V / 220 - 240V,

50 / 60 Hz<HA,HR,LH>

AC 230 V, 50 Hz<EZ>

Power consumption

27 W

Dimensions (W x H x D)

507 (W) x 206 (H) x 299.5 (D) mm

Weight

CSD-ED88 / 89 : 4.7 kg

CSD-ED99 : 4.9 kg

(excluding batteries)

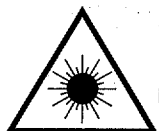
• Design and specifications are subject to change without notice.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvisning, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

ATTENTION

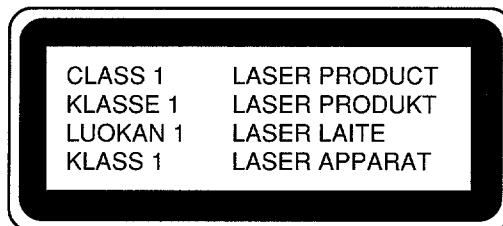
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.

The CLASS 1 LASER PRODUCT label is located on the rear exterior.

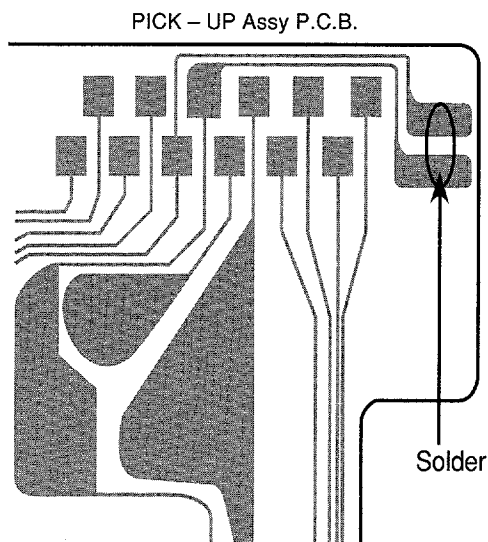


Precaution to replace Optical block

(KSS-213C)

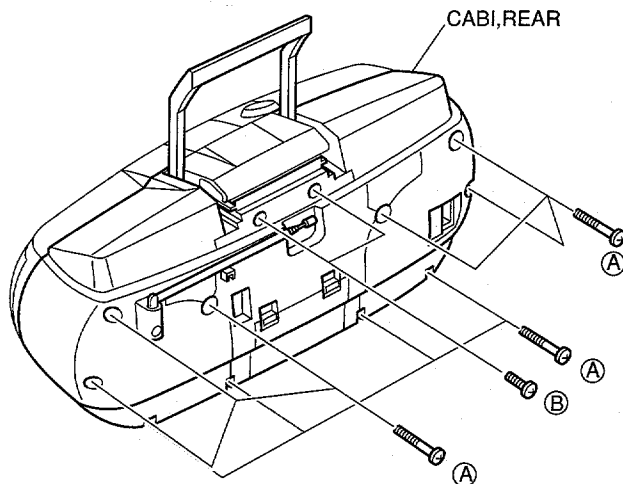
Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure to ground body and workbench, and ensure clothes do not touch the diode.

- 1) After the connection, remove solder shown in right figure.

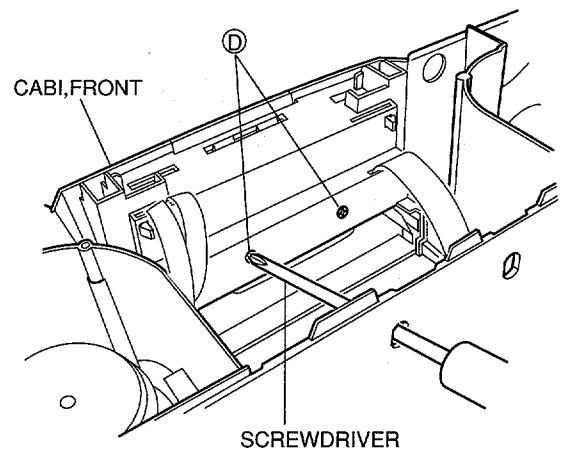


DISASSEMBLY INSTRUCTIONS

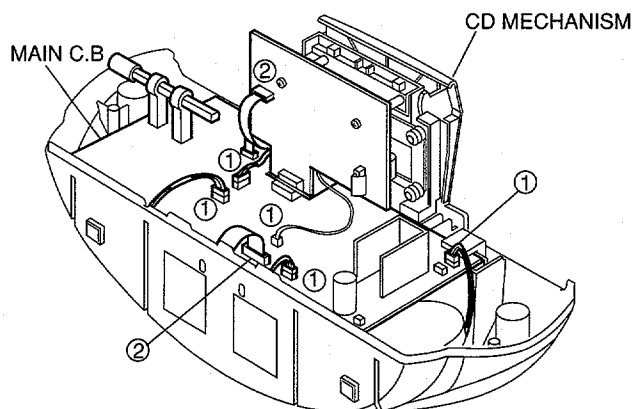
1. Remove screws (A) UT2+3-30x10 and (B) UT1+3-10x2). Holding the rear cabinet, and then remove the rear cabinet.



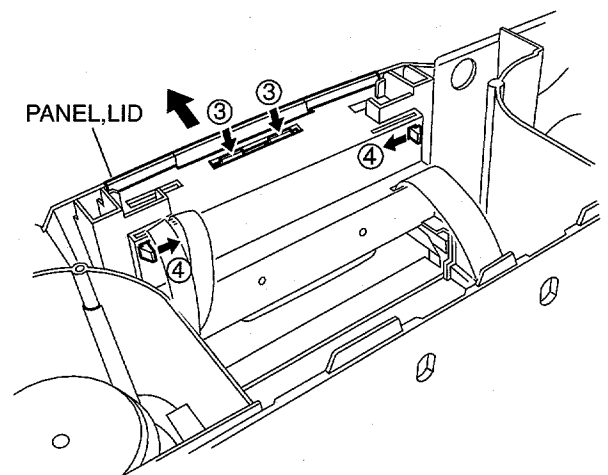
4. Insert a screwdriver into the hole in the front cabinet, and remove screws (D) QT2+3-8x2).



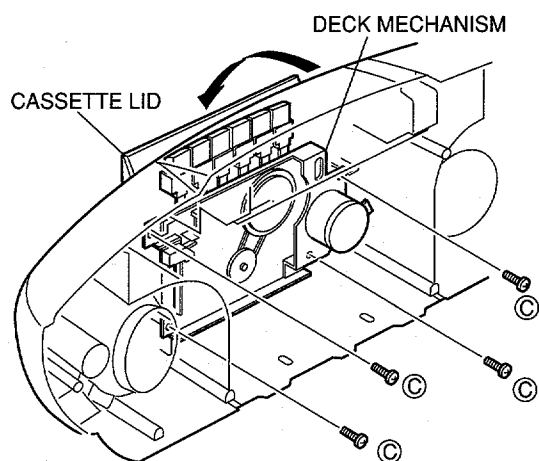
2. Disconnect cord ①x4 and FFC ②x3, MAIN C.B and CD block.



5. Use a flat-bladed screwdriver, etc. to release tab ③. Release tab ④ and push up the operation panel to remove it.



3. Remove screws (C) UT2+3-8x4 that hold the deck mechanism to the cabinet. Open the cassette lid and remove the deck mechanism.



ELECTRICAL MAIN PARTS LIST

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC				C18	87-015-819-080		CAPACITOR,0.01
	87-A21-184-010		IC,TA2104AN	C19	87-010-112-080		CAP, ELECT 100-16V
	87-A21-185-040		C-IC,LC72121M	C20	87-010-404-080		CAP, ELECT 4.7-50V
	87-A20-946-040		C-IC,MM1434XF	C21	87-010-197-080		CAP, CHIP 0.01 DM
	87-A20-591-010		IC,BA5417	C22	87-010-197-080		CAP, CHIP 0.01 DM
	87-A21-111-040		C-IC,M62495FP	C24	87-012-157-080		CHIP CAPACITOR, 330P-50
	87-070-416-010		IC,NJU7201 L55	C25	87-012-393-080		C-CAP,S 0.22-16 K
	87-A20-446-010		C-IC,LA9241ML	C26	87-A11-112-080		CAP, 0.001-50V
	87-A20-459-010		C-IC,LC78622ED	C27	87-A11-067-080		C-CAP,S 1-10 K B
	87-A21-093-010		IC,LA6541D	C28	87-016-669-080		C-CAP,S 0.1-25 K B
	8Z-CH4-636-010		IC,LC867132V-5K36	C29	87-016-669-080		C-CAP,S 0.1-25 K B
	87-A21-245-010		IC,RPM6938-V4	C30	87-010-220-080		C-CAP,S 0.018-50 B
	87-A21-145-040		C-IC,BA4560F-E2	C31	87-010-220-080		C-CAP,S 0.018-50 B
TRANSISTOR				C33	87-010-401-080		CAP, ELECT 1-50V
	89-319-233-080		TR,2SC1923 (0.1W)	C34	87-010-401-080		CAP, ELECT 1-50V
	87-A30-092-080		FET,2SK439E/F<EZ>	C35	87-015-819-080		CAPACITOR,0.01
	87-026-447-080		TR,2SC1740S R<EZ>	C36	87-010-112-080		CAP, ELECT 100-16V
	89-320-011-080		TR,2SC2001 (15W)	C37	87-010-197-080		CAP, CHIP 0.01 DM
	87-026-214-080		TR,DTA114YS (0.3W)	C38	87-010-380-080		CAP, ELECT 47-16V
	87-026-215-010		TR,DTC114YS	C39	87-010-404-080		CAP, ELECT 4.7-50V
	87-026-463-010		TR,2SA933S,RS	C40	87-010-197-080		CAP, CHIP 0.01 DM
	87-026-291-010		TR,DTC124XS	C41	87-012-349-080		C-CAP,S 1000P-50 CH
	89-213-702-010		TR,2SB1370 (1.8W)	C42	87-012-349-080		C-CAP,S 1000P-50 CH
	87-026-462-010		TR,2SC1740S	C43	87-012-349-080		C-CAP,S 1000P-50 CH
	88-NF9-637-010		TR,2SA1318T/U	C44	87-010-311-080		CAP 12P
	89-318-154-080		TR,2SC1815 Y	C45	87-010-312-080		C-CAP,S 15P-50 CH
	89-113-184-080		TR,2SA1318T	C46	87-010-197-080		CAP, CHIP 0.01 DM
	89-112-965-080		TR,2SA1296 (0.75W)	C47	87-010-197-080		CAP, CHIP 0.01 DM
	87-026-464-010		TR,DTC114TS	C48	87-010-197-080		CAP, CHIP 0.01 DM
	87-026-239-010		C-TR,DTC114TK	C49	87-012-156-080		C-CAP,S 220P-50 J CH
	89-110-150-010		TR,2SA1015	C50	87-010-197-080		CAP, CHIP 0.01 DM
	89-318-155-010		TR,2SC1815 (GR)	C51	87-010-316-080		C-CAP,S 33P-50 CH<EZ>
	87-026-496-080		FET,2SJ103GR	C52	87-010-197-080		CAP, CHIP 0.01 DM<EZ>
DIODE				C53	87-010-197-080		CAP, CHIP 0.01 DM<EZ>
	87-070-345-080		DIODE,IN4148	C54	87-A11-110-080		CAP,820P-50<EZ>
	87-A40-616-070		VARI CAP DIODE SVC384	C55	87-010-197-080		CAP, CHIP 0.01 DM<EZ>
	87-A40-615-070		FM VARI-CAP DIODE 3KV1311NT	C71	87-015-819-080		CAPACITOR,0.01
	87-A40-574-080		ZENER,MTZJ3.0A	C73	87-016-669-080		C-CAP,S 0.1-25 K B
	87-A40-466-080		ZENER,MTZJ2.7A	C78	87-A11-148-080		CHIP CAPACITOR,0.1-50<EZ>
	87-A40-648-080		ZENER,MTZJ8.2A	C207	87-010-374-080		CAP, ELECT 47-10V
	87-A40-234-080		ZENER,MTZJ5.6A	C208	87-010-402-080		CAP, ELECT 2.2-50V
	87-017-139-010		ZENER,HZS15-2	C209	87-010-190-080		S CHIP F 0.01
	87-A40-441-080		ZENER,MTZJ7.5B	C210	87-010-190-080		S CHIP F 0.01
	87-020-465-080		DIODE,1SS133 (110MA)	C211	87-010-401-080		CAP, ELECT 1-50V
	87-A40-465-010		DIODE,FR202	C212	87-010-401-080		CAP, ELECT 1-50V
MAIN C.B				C215	87-010-425-080		C-CAP,0.22-25 F
C1	87-010-314-080		C-CAP,S 22P-50V	C216	87-010-425-080		C-CAP,0.22-25 F
C2	87-010-316-080		C-CAP,S 33P-50 J CH	C217	87-010-400-080		CAP, ELECT 0.47-50V
C3	87-010-314-080		C-CAP,S 22P-50V	C218	87-010-400-080		CAP, ELECT 0.47-50V
C5	87-016-669-080		C-CAP,S 0.1-25 KB<EXCEPT EZ>	C220	87-010-405-080		CAP, ELECT 10-50V
C5	87-012-368-080		C-CAP,S 0.1-50 ZF<EZ>	C222	87-010-190-080		S CHIP F 0.01
C6	87-010-312-080		C-CAP,S 15P-50 CH<EZ>	C223	87-010-190-080		S CHIP F 0.01
C6	87-010-313-080		CAP, CHIP 18P<EXCEPT EZ>	C226	87-010-190-080		S CHIP F 0.01
C7	87-012-158-080		C-CAP,S 390P-50 CH	C228	87-010-401-080		CAP, ELECT 1-50V
C8	87-012-349-080		C-CAP,S 1000P-50 CH	C229	87-010-401-080		CAP, ELECT 1-50V
C10	87-010-197-080		CAP, CHIP 0.01 DM	C231	87-010-213-080		C-CAP,S 0.015-50 B
C11	87-010-197-080		CAP, CHIP 0.01 DM	C232	87-010-213-080		C-CAP,S 0.015-50 B
C12	87-010-197-080		CAP, CHIP 0.01 DM	C233	87-010-546-080		CAP, ELECT 0.33-50V
C13	87-010-150-080		C-CAP,S 6P-50 CH	C234	87-010-546-080		CAP, ELECT 0.33-50V
C14	87-012-157-080		C-CAP 330P-50CH	C235	87-010-544-080		CAP, ELECT 0.1-50V
C15	87-012-349-080		C-CAP,S 1000P-50 CH	C236	87-010-544-080		CAP, ELECT 0.1-50V
C16	87-010-380-080		CAP, ELECT 47-16V	C237	87-010-260-080		CAP, ELECT 47-25V
C17	87-010-198-080		CAP, CHIP 0.022-50V	C238	87-010-263-080		CAP, ELECT 100-10V
				C241	87-010-405-080		CAP, ELECT 10-50V
				C242	87-010-405-080		CAP, ELECT 10-50V
				C243	87-010-405-080		CAP, ELECT 10-50V
				C244	87-010-405-080		CAP, ELECT 10-50V
				C245	87-010-405-080		CAP, ELECT 10-50V
				C246	87-010-405-080		CAP, ELECT 10-50V
				C247	87-010-404-080		CAP, ELECT 4.7-50V

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C248	87-010-404-080		CAP, ELECT 4.7-50V	C843	87-018-134-080		CAP, TC U 0.01-16
C251	87-010-401-080		CAP, ELECT 1-50V	C844	87-018-124-080		CAP 270P-100
C261	87-010-402-080		CAP, ELECT 2.2-50V	C846	87-010-194-080		CAP, CHIP 0.047
C262	87-010-402-080		CAP, ELECT 2.2-50V	C849	87-010-177-080		CHIP CAPACITOR 820P<EXCEPT 99>
C263	87-010-178-080		CHIP CAP 1000P-50 KB	C849	87-010-178-080		CHIP CAP, 1000P-50 KB<99>
C264	87-010-178-080		CHIP CAP 1000P-50 KB	C850	87-010-177-080		CHIP CAPACITOR 820P<EXCEPT 99>
C265	87-010-383-080		CAP, ELECT 33-25V	C850	87-010-178-080		CHIP CAP, 1000P-50 KB<99>
C266	87-010-383-080		CAP, ELECT 33-25V	C851	87-010-186-080		C-CAP, S 4700P-50 KB
C267	87-010-380-080		CAP, ELECT 47-16V	C852	87-018-131-080		CAP, 0.001-50V
C268	87-010-380-080		CAP, ELECT 47-16V	C853	87-010-190-080		S CHIP F 0.01
C271	87-010-236-080		CAP, ELECT 1000-10V	C910	87-010-197-080		CAP, CHIP 0.01 DM<EXCEPT EZ>
C272	87-010-236-080		CAP, ELECT 1000-10V	C927	87-010-316-080		C-CAP, S 33P-50 J CH
C277	87-010-260-080		CAP, ELECT 47-25V	C928	87-010-316-080		C-CAP, S 33P-50 J CH
C278	87-010-263-080		CAP, ELECT 100-10V	C929	87-A11-076-080		C-CAP, S 33P-50
C279	87-010-112-080		CAP, ELECT 100-16V	C930	87-010-316-080		C-CAP, S 33P-50 J CH
C280	87-010-956-080		C-CAP, S 0.068-50	C942	87-010-197-080		CAP, CHIP 0.01 DM<EZ>
C281	87-010-956-080		C-CAP, S 0.068-50	CF2	82-785-747-080		CF, MS2 GHY, R
C299	87-010-197-080		CAP, CHIP 0.01 DM	CF3	82-785-747-080		CF, MS2 GHY, R
C301	87-010-453-010		CAP, ELECT 4700-25V	CF4	87-A91-094-010		FLTR, CDA10.7 MG80A
C306	87-010-404-080		CAP, ELECT 4.7-50V	CN1	87-099-194-010		CONN, 6P 6216V
C307	87-010-401-080		CAP, ELECT 1-50V	CN201	87-A60-054-010		CONN, 14P 6216V
C308	87-010-221-080		CAP, ELECT 470-10V	CN204	87-049-469-010		CONN, 4P V
C309	87-010-263-080		CAP, ELECT 100-10V	CN205	87-A90-178-010		CONN, 2P V S2M-2W
C310	87-010-248-080		CAP, ELECT 220-10V	CN801	87-049-469-010		CONN, 4P V
C311	87-010-384-080		CAP, ELECT 100-25V	CN802	87-049-469-010		CONN, 4P V<EXCEPT 99>
C312	87-010-385-080		CAP, ELECT 220-25V	CN803	S1-2S3-002-500		CONN, 3P
C314	87-010-248-080		CAP, ELECT 220-10V	CON802	8Z-CH4-612-010		CONN ASSY, 6P<99>
C315	87-010-197-080		CAP, CHIP 0.01 DM	CON803	8Z-CH4-616-010		CONN ASSY, 3P
C321	87-010-197-080		CAP, CHIP 0.01 DM	L2	87-A50-347-010		COIL, FM BPF EX
C322	87-010-263-080		CAP, ELECT 100-10V	L3	87-A91-095-010		BAR-ANT, MW FOR 2B(SYN)<EXCEPT EZ>
C325	87-010-405-080		CAP, ELECT 10-50V	L3	87-A91-096-010		BAR-ANT, MW/LW FOR 3B(SYN)<EZ>
C341	87-010-197-080		CAP, CHIP 0.01 DM	L4	87-A50-420-010		COIL, MW OSC(SYN)
C342	87-010-221-080		CAP, ELECT 470-10V	L5	87-A50-424-010		COIL, FM RF EX(SYN)
C343	87-010-401-080		CAP, ELECT 1-50V	L6	87-A50-427-010		COIL, FM OSC EX(SYN)
C801	87-010-402-080		CAP, ELECT 2.2-50V	L7	87-A91-308-010		FLTR, PCFAZH- 450T (TOK)
C802	87-010-402-080		CAP, ELECT 2.2-50V	L8	87-005-849-080		COIL, 10UH(CECS)
C803	87-010-181-080		C-CAP, S 1800P-50 KB<EXCEPT 99>	L9	87-005-849-080		COIL, 10UH(CECS)
C803	87-010-182-080		C-CAP, S 2200P-50 KB<99>	L51	87-A50-421-010		COIL, LW OSC(SYN)<EZ>
C804	87-010-181-080		C-CAP, S 1800P-50 KB<EXCEPT 99>	L801	87-007-342-010		COIL, OSC 85K BIAS
C804	87-010-182-080		C-CAP, S 2200P-50 KB<99>	R840	87-029-124-010		RES, FUSE 2.2-1/4
C805	87-012-158-080		C-CAP, S 390P-50 CH	S2	87-036-389-010		SW, PUSH 1-1-1 R8120125
C806	87-012-158-080		C-CAP, S 390P-50 CH	S3	87-A91-151-010		SW, LEAF 1P2T/TC 48-021
C809	87-010-379-010		CAP, E 22-10 SM	TC1	87-011-220-080		TRIMMER CAP 20P VTC
C810	87-010-379-010		CAP, E 22-10 SM	TC51	87-011-233-080		TRIMER, 50P VCT54<EZ>
C811	87-010-404-080		CAP, ELECT 4.7-50V	X1	87-A70-061-010		VIB, XTAL 4.500MHZ CSA-309
C812	87-010-404-080		CAP, ELECT 4.7-50V	FRONT C.B			
C815	87-010-374-010		CAP, ELECT 47-10V	C601	87-010-313-080		CAP, CHIP 18P
C816	87-010-384-080		CAP, ELECT 100-25V	C602	87-010-315-080		C-CAP, S 27P-50 CH
C819	87-010-401-010		CAP, ELECT 1-50V	C603	87-010-319-080		C-CAP, S 56P-50 J CH
C820	87-010-401-010		CAP, ELECT 1-50V	C604	87-010-312-080		C-CAP, S 15P-50 J CH
C821	87-010-183-080		C-CAP, S 2700P-50 KB<EXCEPT 99>	C605	87-010-317-080		C-CAP, S 39P-50 CH
C821	87-012-153-080		C-CAP, S 120P-50 CH<99>	C606	87-A11-067-080		C-CAP, S 1-10
C822	87-010-183-080		C-CAP, S 2700P-50 KB<EXCEPT 99>	C607	87-010-197-080		CAP, CHIP 0.01 DM
C822	87-012-153-080		C-CAP, S 120P-50 CH<99>	C608	87-012-368-080		C-CAP, S 0.1-50 ZF
C823	87-010-213-080		C-CAP, S 0.015-50 B	C609	87-A11-067-080		C-CAP, S 1-10
C824	87-010-213-080		C-CAP, S 0.015-50 B	C610	87-010-112-080		CAP, ELECT 100-16V
C825	87-010-405-080		CAP, ELECT 10-50V	C611	87-A11-148-080		CHIP CAPACITOR, 0.1-50
C826	87-010-405-080		CAP, ELECT 10-50V	C612	87-010-248-080		CAP, ELECT 220-6.3V
C827	87-010-404-080		CAP, ELECT 4.7-50V	C613	87-010-402-080		CAP, ELECT 2.2-50V
C828	87-010-404-080		CAP, ELECT 4.7-50V	C614	87-012-368-080		C-CAP, S 0.1-50 ZF
C830	87-010-260-080		CAP, ELECT 47-25V	C615	87-010-400-080		CAP, ELECT 0.47-50V
C831	87-010-198-080		CAP, CHIP 0.022	C616	87-010-401-080		CAP, ELECT 1-50V
C832	87-010-198-080		CAP, CHIP 0.022	C617	87-010-178-080		CHIP CAP 1000P
C833	87-010-179-080		CAP, CHIP S B1200P	C618	87-010-391-080		CAP, ELECT 10-25V
C834	87-010-248-080		CAP, ELECT 220-10V	C620	87-010-190-080		C-CAP, S 0.01-50
C835	87-012-358-010		C-CAP, S 0.47-16V	C625	87-010-805-080		C-CAP, S 1-16
C837	87-010-374-010		CAP, ELECT 47-10V	C626	87-010-404-080		CAP, ELECT 4.7-50V
C838	87-010-405-080		CAP, ELECT 10-50V	C691	87-010-405-080		CAP, ELECT 10-50V
C841	87-010-182-080		C-CAP, S 2200P-50 KB				
C842	87-010-182-080		C-CAP, S 2200P-50 KB				

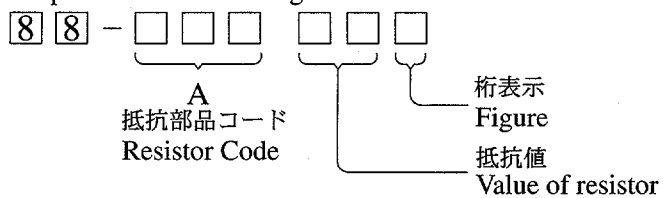
REF.NO.	PART NO.	KANRI NO.	DESCRIPTION	REF.NO.	PART NO.	KANRI NO.	DESCRIPTION
CN601	87-099-031-010		CONN,14P 6216 H	C475	87-010-197-080		CAP, CHIP 0.01 DM
CN602	87-099-200-010		CONN,7P 6216H	C476	87-010-236-080		CAP,E 1000-10 SME
CN603	87-099-199-010		CONN,6P 6216 H	C477	87-010-197-080		CAP, CHIP 0.01 DM
CN604	87-099-200-010		CONN,7P 6216H	C478	87-010-263-080		CAP, ELECT 100-10V
CN605	87-099-200-010		CONN,7P 6216H	C479	87-010-197-080		CAP, CHIP 0.01 DM
FC601	8Z-CH4-619-010		FF-CABLE,14P AF-FR	C480	87-010-221-080		CAP, ELECT 470-10V
FC602	8Z-CH4-621-010		FF-CABLE,7P CD-FR	C481	87-010-405-080		CAP, ELECT 10-50V
FC603	8Z-CH4-622-010		FF-CABLE,6P TU-FR	C482	87-010-405-080		CAP, ELECT 10-50V
FC604	8Z-CH4-620-010		FF-CABLE,7P FR-LED	C483	87-012-156-080		C-CAP,S 220P-50 CH
FC605	8Z-CH4-621-010		FF-CABLE,7P FR-LED	C484	87-012-156-080		C-CAP,S 220P-50 CH
L601	87-003-171-010		COIL,10UH TROIDAL	C489	87-012-368-080		C-CAP,S 0.1-50 ZF
LCD601	8Z-CH4-635-010		LCD,HLC7365 ZCH-4	C490	87-012-368-080		C-CAP,S 0.1-50 ZF
S601	87-A90-164-080		SW,TACT SKQNA(N)	C491	87-010-197-080		CAP, CHIP 0.01 DM
S604	87-A90-164-080		SW,TACT SKQNA(N)	C492	87-010-221-080		CAP, ELECT 470-10V
S605	87-A90-164-080		SW,TACT SKQNA(N)	C493	87-010-190-080		C-CAP,S 0.01-50
S606	87-A90-164-080		SW,TACT SKQNA(N)	C501	87-012-368-080		C-CAP,S 0.1-50 ZF
S607	87-A90-164-080		SW,TACT SKQNA(N)	C502	87-010-322-080		C-CAP,S 100P-50 J CH
S614	87-A90-164-080		SW,TACT SKQNA(N)	C503	87-010-322-080		C-CAP,S 100P-50 J CH
S615	87-A90-164-080		SW,TACT SKQNA(N)	C504	87-010-322-080		C-CAP,S 100P-50 J CH
X601	87-030-415-010		XTAL 32.768KHZ	C505	87-010-322-080		C-CAP,S 100P-50 J CH
X602	87-A70-070-080		VIB,CER 5.76MHZ CRHF	C506	87-010-322-080		C-CAP,S 100P-50 J CH
CD MAIN C.B				C510	87-012-368-080		C-CAP,S 0.1-50 ZF
C401	87-010-403-080		CAP, ELECT 3.3-50V	CN401	87-A60-424-010		CONN,16P V TOC-B
C402	87-010-197-080		CAP, CHIP 0.01 DM	CN402	8Z-CH4-614-010		CONN ASSY,6P CD-ME
C403	87-010-263-080		CAP, ELECT 100-10V	CN403	87-099-195-010		CONN,7P 6216 V
C404	87-010-248-080		CAP, ELECT 220-10V	FC401	8Z-CH4-618-010		FF-CABLE,16P CD-RF
C405	87-010-197-080		CAP, CHIP 0.01 DM	L401	87-003-102-080		COIL, 10UH
C406	87-010-374-080		CAP, ELECT 47-10V	L404	87-003-152-080		COIL,100UH CECS
C407	87-010-178-080		C-CAP,S 1000P-50 KB	SPR430	87-024-176-080		SFR,100K H NVZ26TLTA
C409	87-010-248-080		CAP, ELECT 220-10V	X401	87-A70-046-010		VIB,XTAL 16.934MHZ
C410	87-010-263-080		CAP, ELECT 100-10V	LED C.B			
C412	87-010-403-080		CAP, ELECT 3.3-50V	CN608	87-099-200-010		CONN,7P 6216H
C413	87-A11-138-080		CAP,0.033-50	CN609	87-099-200-010		CONN,7P 6216H
C414	87-010-405-080		CAP, ELECT 10-50V	LED601	88-CD6-630-010		LED,934ID RED
C416	87-010-545-080		CAP, ELECT 0.22-50V	LED602	88-CD6-630-010		LED,934ID RED
C417	87-012-157-080		C-CAP,S 330P-50 CH	LED603	88-CD6-630-010		LED,934ID RED
C425	87-010-176-080		C-CAP,S 680P-50 SL	LED604	88-CD6-630-010		LED,934ID RED
C429	87-010-186-080		CAP,CHIP 4700P	LED606	88-CD6-630-010		LED,934ID RED
C430	87-012-156-080		C-CAP,S 220P-50 CH	LED607	88-CD6-630-010		LED,934ID RED
C431	87-010-545-080		CAP, ELECT 0.22-50V	LED608	88-CD6-630-010		LED,934ID RED
C432	87-010-374-080		CAP, ELECT 47-10V	LED610	88-CD6-631-010		LED,934GD GRN
C433	87-010-401-080		CAP, ELECT 1-50V	KEY C.B			
C434	87-010-184-080		C-CAP,S 3300P-50 KB	CN607	87-A60-109-010		CONN, 2PIN
C435	87-010-197-080		CAP, CHIP 0.01 DM	S608	87-A90-164-080		SW,TACT SKQNA(N)
C436	87-010-374-080		CAP, ELECT 47-10V	S609	87-A90-164-080		SW,TACT SKQNA(N)
C437	87-010-404-080		CAP, ELECT 4.7-50V	S610	87-A90-164-080		SW,TACT SKQNA(N)
C438	87-012-368-080		C-CAP,S 0.1-50 ZF	S611	87-A90-164-080		SW,TACT SKQNA(N)
C442	87-010-314-080		C-CAP,S 22P-50V	S612	87-A90-164-080		SW,TACT SKQNA(N)
C445	87-012-368-080		C-CAP,S 0.1-50 ZF	S613	87-A90-164-080		SW,TACT SKQNA(N)
C446	87-012-368-080		C-CAP,S 0.1-50 ZF	HP C.B			
C447	87-012-368-080		C-CAP,S 0.1-50 ZF	J251	87-A60-569-010		JACK,HTJ-035-18
C448	87-010-315-080		C-CAP,S 27P-50 CH	PWR C.B			
C450	87-012-140-080		CAP 470P	C901	87-A10-577-080		CAP,CER 0.022-25
C451	87-012-156-080		C-CAP,S 220P-50 CH	C902	87-A10-577-080		CAP,CER 0.022-25
C455	87-010-263-080		CAP, ELECT 100-10V	C903	87-A10-577-080		CAP,CER 0.022-25
C457	87-010-312-080		C-CAP,S 15P-50 J CH	C904	87-A10-577-080		CAP,CER 0.022-25
C458	87-010-312-080		C-CAP,S 15P-50 J CH	F901	87-035-347-010		FUSE,2.5A 250V T<EXCEPT EZ>
C459	87-010-263-080		CAP, ELECT 100-10V	FC901	87-A90-505-080		FUSE HOLDER<EXCEPT EZ>
C460	87-010-197-080		C-CAP,S 0.01-50	FC902	87-A90-505-080		FUSE HOLDER<EXCEPT EZ>
C461	87-012-368-080		C-CAP,S 0.1-50 ZF	PR901	87-A90-092-080		PROTECTOR 2.5A 491 60V<EZ>
C462	87-010-248-080		CAP,E 220-10V	MOTOR-1 C.B			
C465	87-010-404-080		CAP, ELECT 4.7-50V				
C466	87-012-368-080		C-CAP,S 0.1-50 ZF				
C467	87-010-263-080		CAP, ELECT 100-10V				
C468	87-012-368-080		C-CAP,S 0.1-50 ZF				
C469	87-018-121-080		CAP,150P-50V				
C470	87-010-544-080		CAP, ELECT 0.1-50V				

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
M2	9X-262-576-910		MOTOR GEAR ASS
PIN3	91-564-722-110		CONNECTOR 6P
SW1	91-572-085-120		LEAF SW

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち

Chip Resistor Part Coding



チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法/Dimensions (mm)				抵抗コード : A Resistor Code : A
				外形/Form	L	W	t	
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION



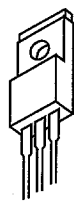
ECB

2SA933
2SC1740
DTA114YS
DTC114TS
DTC114YS
DTC124XS



ECB

2SA1015
2SA1296
2SA1318
2SC1815
2SC1923
2SC2001



BCE

2SB1370



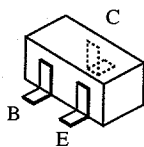
SGD

2SJ103

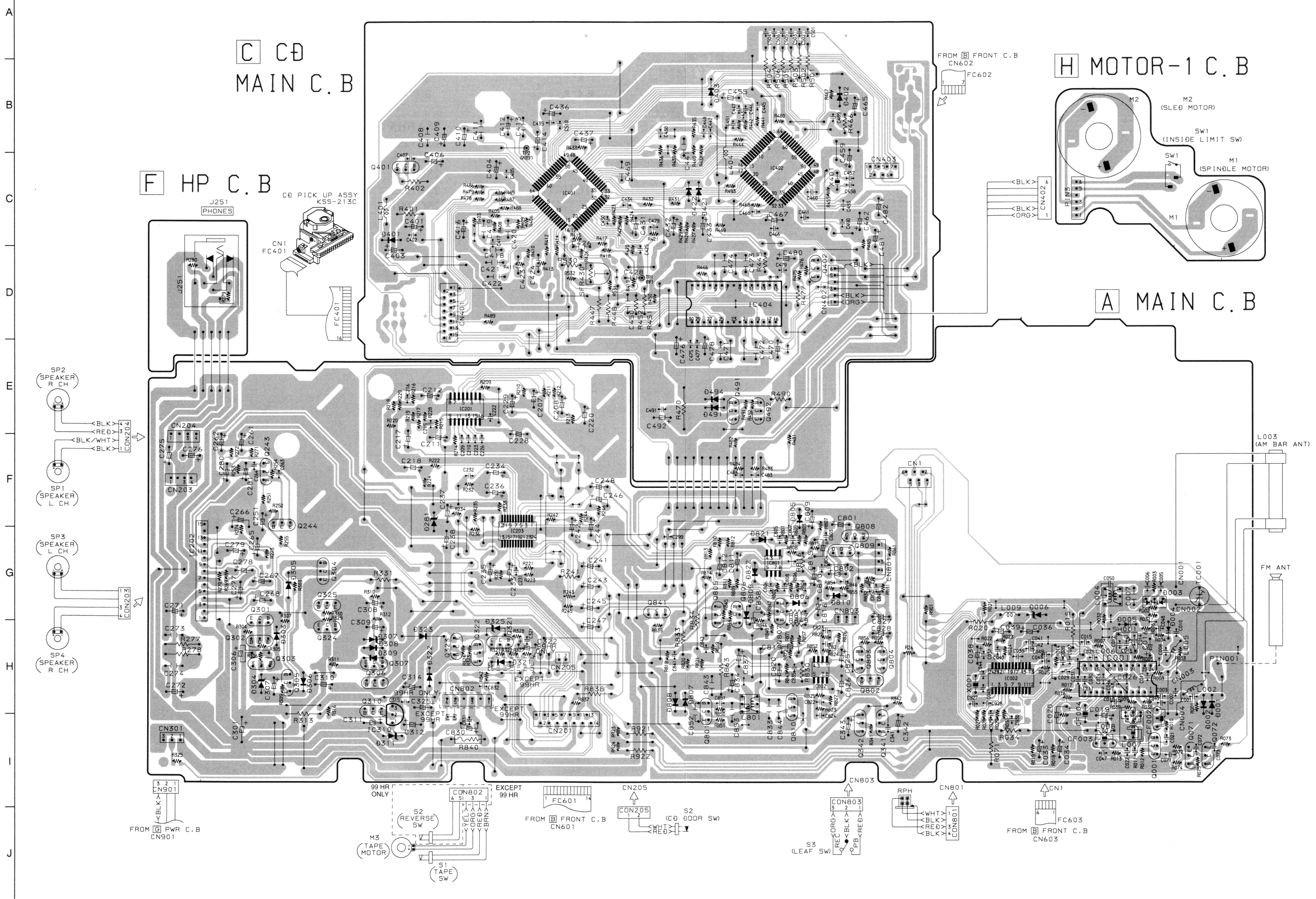


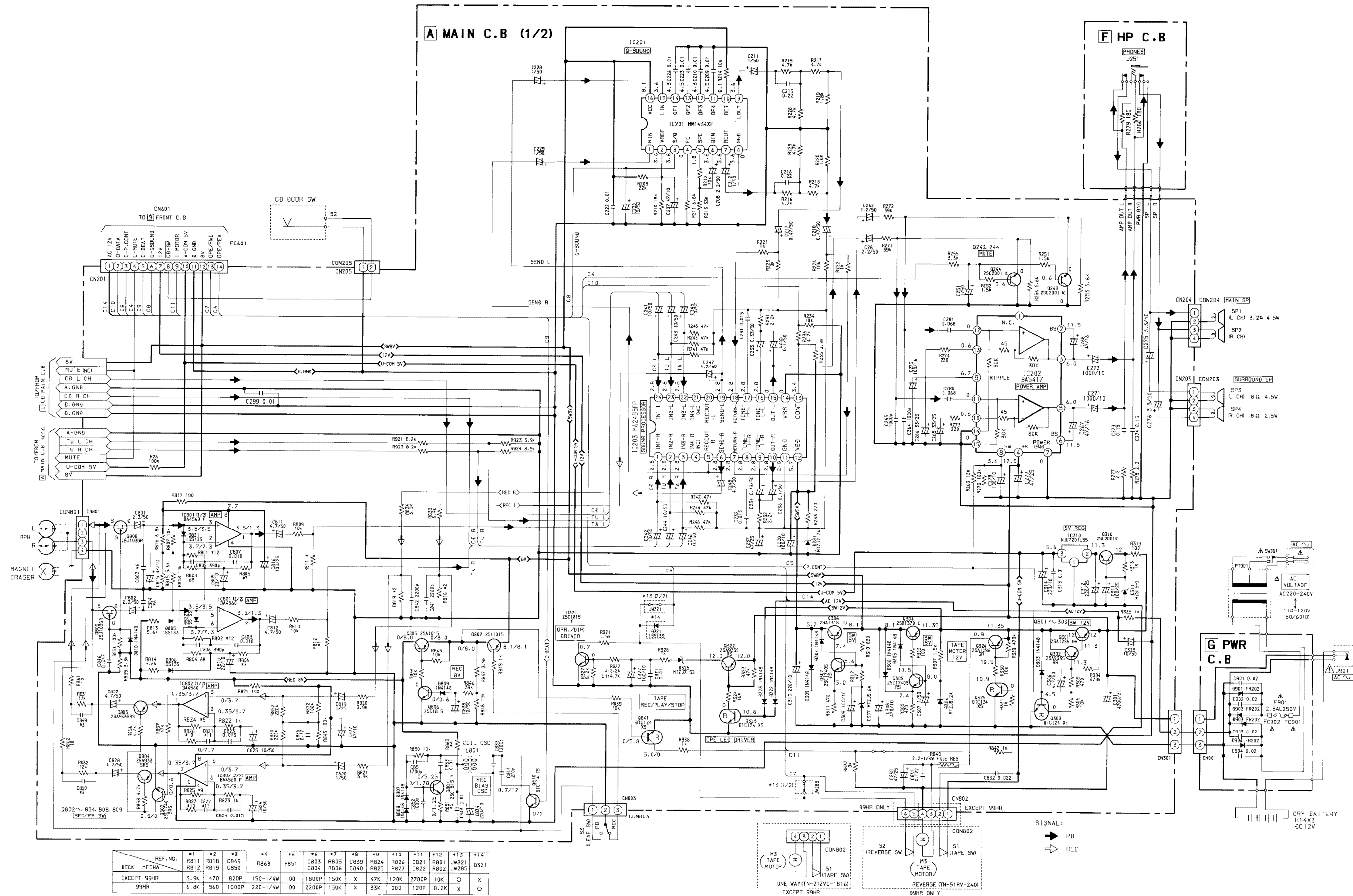
GSD

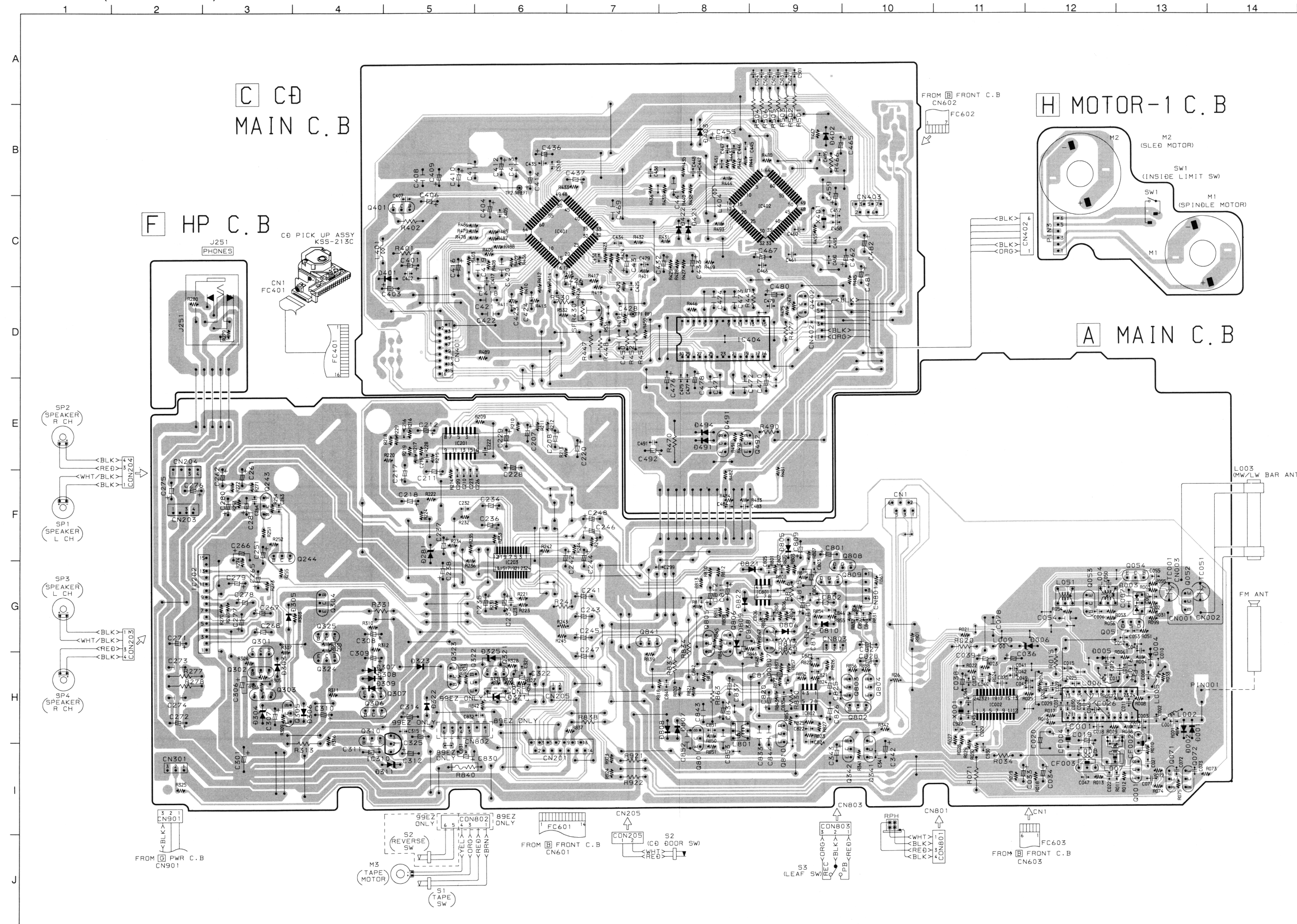
2SK439

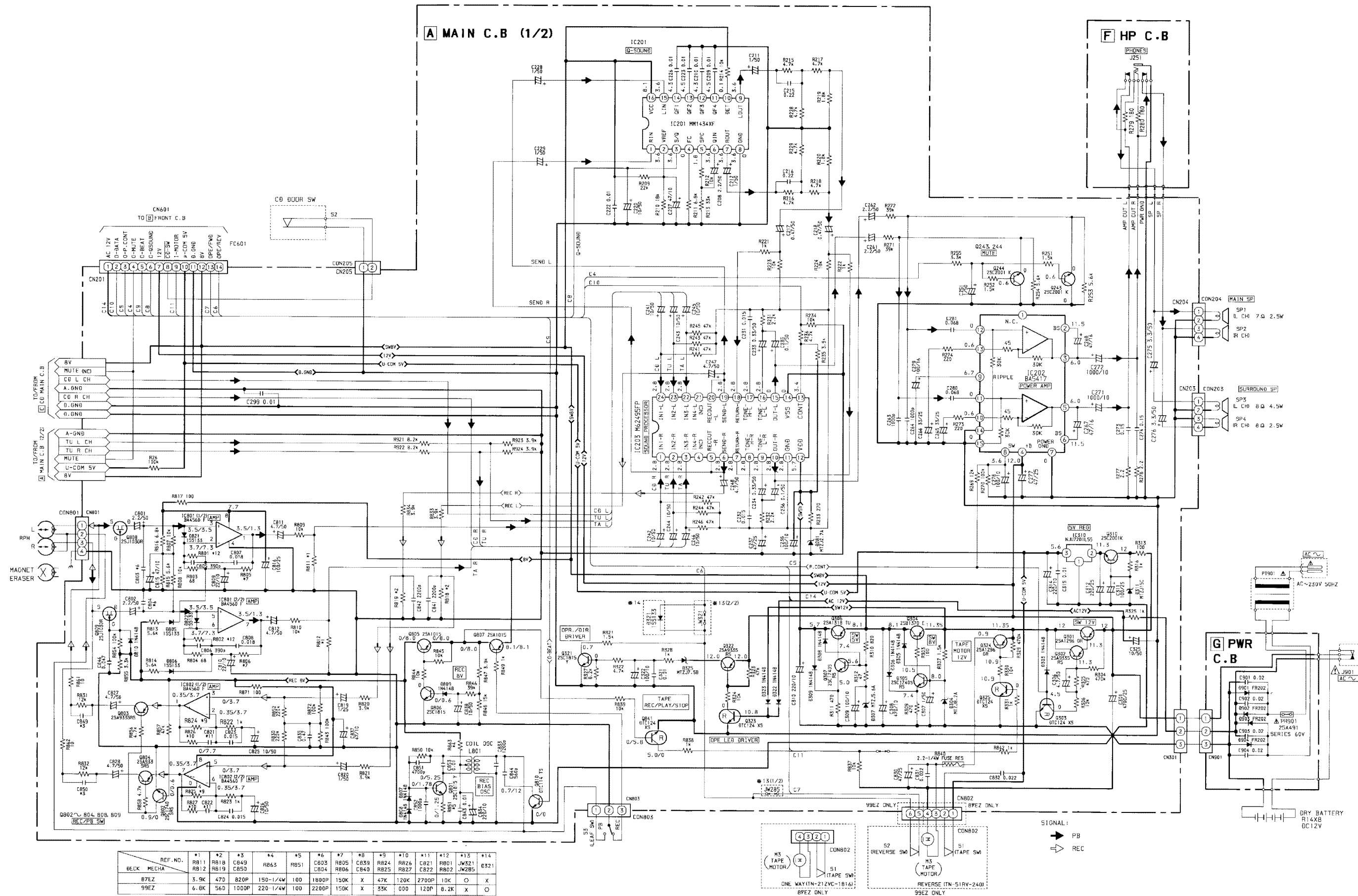


DTC114TK









The block diagram illustrates the PLL circuit for the TDA16748. Key components and their connections include:

- Inputs:** VSSX (2), XTIN (1), XDOUT (24), FMIN (17), AMIN (16), CE (3), 01 (4), CL (5), 00 (6), VDD (18), VSSB (19), 07 (7), 08 (8), 09 (9), 10 (10), 11 (11), 12 (12).
- Core Blocks:**
 - REFERENCE DIVIDER:** Receives XTIN and XDOUT signals.
 - PHASE DETECTOR CHARGE PUMP:** Receives signals from the Reference Divider and the Universal Counter.
 - UNLOCK DETECTOR:** Receives signals from the Reference Divider and the Universal Counter.
 - SWALLOW COUNTER 1/16 & 1/17 40bits:** Receives signals from the Reference Divider and the Universal Counter.
 - 120bits PROGRAMMABLE DIVIDER:** Receives signals from the Swallow Counter and the Universal Counter.
 - DATA SHIFT REGISTER LATCH:** Receives signals from the Universal Counter and the 120bits Programmable Divider.
 - UNIVERSAL COUNTER:** Receives signals from the Data Shift Register Latch and the 120bits Programmable Divider.
- Control Logic:**
 - OCB 1/2:** Receives CE, 01, CL, and 00 signals.
 - POWER ON RESET:** Receives VDD and VSSB signals.
- Outputs:** 07 (7), 08 (8), 09 (9), 10 (10), 11 (11), 12 (12).

The diagram shows a radio receiver circuit with 12 pins. The pins are labeled as follows:

- 1: GND1
- 2: FM RF
- 3: AM LOW
- 4: MIX OUT
- 5: VCC
- 6: AM 1F
- 7: FM 1F
- 8: GND2
- 9: AGC
- 10: QUAD
- 11: R-OUT
- 12: L-OUT

The circuit includes the following functional blocks and connections:

- FM RF** (Pin 2) connects to an **FM RF** block.
- AM LOW** (Pin 3) connects to an **AM MIX** block.
- MIX OUT** (Pin 4) connects to an **FM MIX** block.
- VCC** (Pin 5) connects to the **FM MIX** block.
- AM 1F** (Pin 6) connects to an **AM 1F** block.
- FM 1F** (Pin 7) connects to an **FM 1F** block.
- GND2** (Pin 8) connects to the **FM 1F** block.
- AGC** (Pin 9) connects to an **AGC** block.
- QUAD** (Pin 10) connects to a **QUAD** block.
- R-OUT** (Pin 11) connects to an **R-OUT** block.
- L-OUT** (Pin 12) connects to an **L-OUT** block.

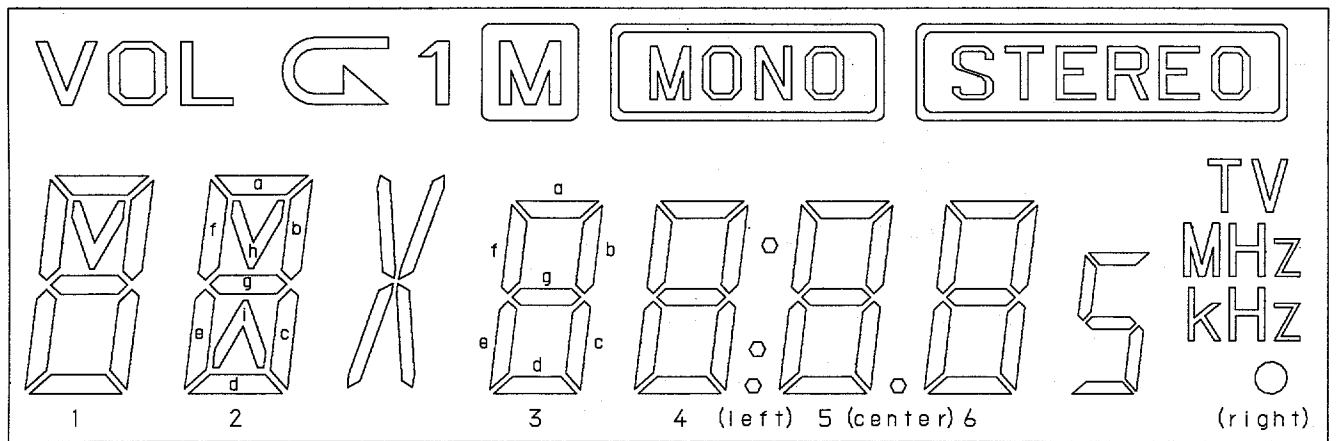
The circuit also includes several other blocks and connections:

- FM RF** block connects to **FM OSC** (Pin 22) and **FM OSC** (Pin 21).
- FM OSC** (Pin 21) connects to **FM OSC** (Pin 20) and **FM OSC** (Pin 19).
- FM OSC** (Pin 20) connects to **FM OSC** (Pin 18) and **FM OSC** (Pin 17).
- FM OSC** (Pin 18) connects to **FM OSC** (Pin 16) and **FM OSC** (Pin 15).
- FM OSC** (Pin 16) connects to **FM OSC** (Pin 14) and **FM OSC** (Pin 13).
- FM OSC** (Pin 14) connects to **FM OSC** (Pin 12) and **FM OSC** (Pin 11).
- FM OSC** (Pin 12) connects to **FM OSC** (Pin 10) and **FM OSC** (Pin 9).
- FM OSC** (Pin 10) connects to **FM OSC** (Pin 8) and **FM OSC** (Pin 7).
- FM OSC** (Pin 8) connects to **FM OSC** (Pin 6) and **FM OSC** (Pin 5).
- FM OSC** (Pin 6) connects to **FM OSC** (Pin 4) and **FM OSC** (Pin 3).
- FM OSC** (Pin 4) connects to **FM OSC** (Pin 2) and **FM OSC** (Pin 1).
- FM OSC** (Pin 2) connects to **FM OSC** (Pin 1) and **FM OSC** (Pin 0).
- FM OSC** (Pin 1) connects to **FM OSC** (Pin 0) and **FM OSC** (Pin -1).
- FM OSC** (Pin 0) connects to **FM OSC** (Pin -1) and **FM OSC** (Pin -2).
- FM OSC** (Pin -1) connects to **FM OSC** (Pin -2) and **FM OSC** (Pin -3).
- FM OSC** (Pin -2) connects to **FM OSC** (Pin -3) and **FM OSC** (Pin -4).
- FM OSC** (Pin -3) connects to **FM OSC** (Pin -4) and **FM OSC** (Pin -5).
- FM OSC** (Pin -4) connects to **FM OSC** (Pin -5) and **FM OSC** (Pin -6).
- FM OSC** (Pin -5) connects to **FM OSC** (Pin -6) and **FM OSC** (Pin -7).
- FM OSC** (Pin -6) connects to **FM OSC** (Pin -7) and **FM OSC** (Pin -8).
- FM OSC** (Pin -7) connects to **FM OSC** (Pin -8) and **FM OSC** (Pin -9).
- FM OSC** (Pin -8) connects to **FM OSC** (Pin -9) and **FM OSC** (Pin -10).
- FM OSC** (Pin -9) connects to **FM OSC** (Pin -10) and **FM OSC** (Pin -11).
- FM OSC** (Pin -10) connects to **FM OSC** (Pin -11) and **FM OSC** (Pin -12).
- FM OSC** (Pin -11) connects to **FM OSC** (Pin -12) and **FM OSC** (Pin -13).
- FM OSC** (Pin -12) connects to **FM OSC** (Pin -13) and **FM OSC** (Pin -14).
- FM OSC** (Pin -13) connects to **FM OSC** (Pin -14) and **FM OSC** (Pin -15).
- FM OSC** (Pin -14) connects to **FM OSC** (Pin -15) and **FM OSC** (Pin -16).
- FM OSC** (Pin -15) connects to **FM OSC** (Pin -16) and **FM OSC** (Pin -17).
- FM OSC** (Pin -16) connects to **FM OSC** (Pin -17) and **FM OSC** (Pin -18).
- FM OSC** (Pin -17) connects to **FM OSC** (Pin -18) and **FM OSC** (Pin -19).
- FM OSC** (Pin -18) connects to **FM OSC** (Pin -19) and **FM OSC** (Pin -20).
- FM OSC** (Pin -19) connects to **FM OSC** (Pin -20) and **FM OSC** (Pin -21).
- FM OSC** (Pin -20) connects to **FM OSC** (Pin -21) and **FM OSC** (Pin -22).
- FM OSC** (Pin -21) connects to **FM OSC** (Pin -22) and **FM OSC** (Pin -23).
- FM OSC** (Pin -22) connects to **FM OSC** (Pin -23) and **FM OSC** (Pin -24).
- FM OSC** (Pin -23) connects to **FM OSC** (Pin -24) and **FM OSC** (Pin -25).
- FM OSC** (Pin -24) connects to **FM OSC** (Pin -25) and **FM OSC** (Pin -26).
- FM OSC** (Pin -25) connects to **FM OSC** (Pin -26) and **FM OSC** (Pin -27).
- FM OSC** (Pin -26) connects to **FM OSC** (Pin -27) and **FM OSC** (Pin -28).
- FM OSC** (Pin -27) connects to **FM OSC** (Pin -28) and **FM OSC** (Pin -29).
- FM OSC** (Pin -28) connects to **FM OSC** (Pin -29) and **FM OSC** (Pin -30).
- FM OSC** (Pin -29) connects to **FM OSC** (Pin -30) and **FM OSC** (Pin -31).
- FM OSC** (Pin -30) connects to **FM OSC** (Pin -31) and **FM OSC** (Pin -32).
- FM OSC** (Pin -31) connects to **FM OSC** (Pin -32) and **FM OSC** (Pin -33).
- FM OSC** (Pin -32) connects to **FM OSC** (Pin -33) and **FM OSC** (Pin -34).
- FM OSC** (Pin -33) connects to **FM OSC** (Pin -34) and **FM OSC** (Pin -35).
- FM OSC** (Pin -34) connects to **FM OSC** (Pin -35) and **FM OSC** (Pin -36).
- FM OSC** (Pin -35) connects to **FM OSC** (Pin -36) and **FM OSC** (Pin -37).
- FM OSC** (Pin -36) connects to **FM OSC** (Pin -37) and **FM OSC** (Pin -38).
- FM OSC** (Pin -37) connects to **FM OSC** (Pin -38) and **FM OSC** (Pin -39).
- FM OSC** (Pin -38) connects to **FM OSC** (Pin -39) and **FM OSC** (Pin -40).
- FM OSC** (Pin -39) connects to **FM OSC** (Pin -40) and **FM OSC** (Pin -41).
- FM OSC** (Pin -40) connects to **FM OSC** (Pin -41) and **FM OSC** (Pin -42).
- FM OSC** (Pin -41) connects to **FM OSC** (Pin -42) and **FM OSC** (Pin -43).
- FM OSC** (Pin -42) connects to **FM OSC** (Pin -43) and **FM OSC** (Pin -44).
- FM OSC** (Pin -43) connects to **FM OSC** (Pin -44) and **FM OSC** (Pin -45).
- FM OSC** (Pin -44) connects to **FM OSC** (Pin -45) and **FM OSC** (Pin -46).
- FM OSC** (Pin -45) connects to **FM OSC** (Pin -46) and **FM OSC** (Pin -47).
- FM OSC** (Pin -46) connects to **FM OSC** (Pin -47) and **FM OSC** (Pin -48).
- FM OSC** (Pin -47) connects to **FM OSC** (Pin -48) and **FM OSC** (Pin -49).
- FM OSC** (Pin -48) connects to **FM OSC** (Pin -49) and **FM OSC** (Pin -50).
- FM OSC** (Pin -49) connects to **FM OSC** (Pin -50) and **FM OSC** (Pin -51).
- FM OSC** (Pin -50) connects to **FM OSC** (Pin -51) and **FM OSC** (Pin -52).
- FM OSC** (Pin -51) connects to **FM OSC** (Pin -52) and **FM OSC** (Pin -53).
- FM OSC** (Pin -52) connects to **FM OSC** (Pin -53) and **FM OSC** (Pin -54).
- FM OSC** (Pin -53) connects to **FM OSC** (Pin -54) and **FM OSC** (Pin -55).
- FM OSC** (Pin -54) connects to **FM OSC** (Pin -55) and **FM OSC** (Pin -56).
- FM OSC** (Pin -55) connects to **FM OSC** (Pin -56) and **FM OSC** (Pin -57).
- FM OSC** (Pin -56) connects to **FM OSC** (Pin -57) and **FM OSC** (Pin -58).
- FM OSC** (Pin -57) connects to **FM OSC** (Pin -58) and **FM OSC** (Pin -59).
- FM OSC** (Pin -58) connects to **FM OSC** (Pin -59) and **FM OSC** (Pin -60).
- FM OSC** (Pin -59) connects to **FM OSC** (Pin -60) and **FM OSC** (Pin -61).
- FM**

[illegible]

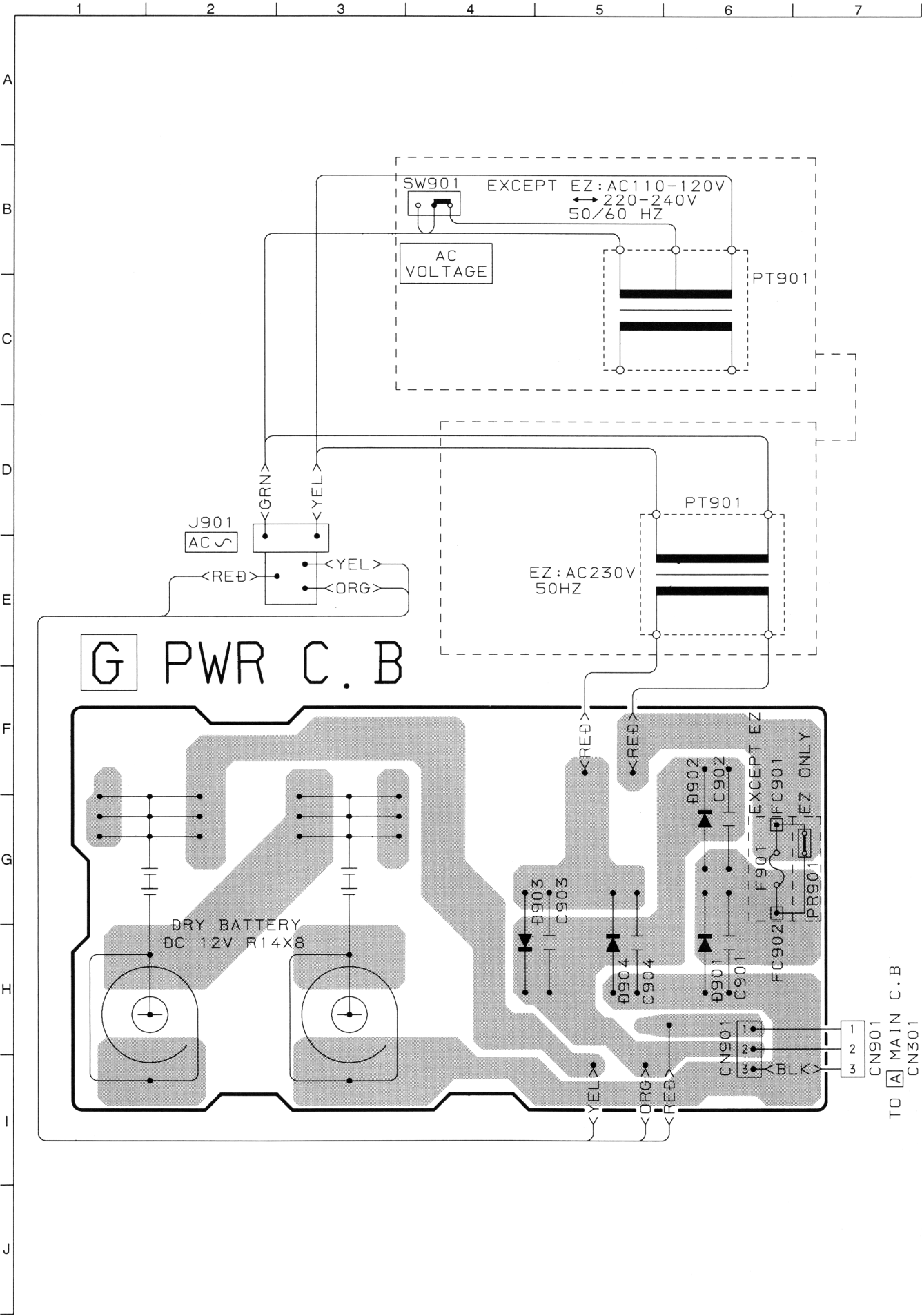
LCD DISPLAY

LCD HLC7365



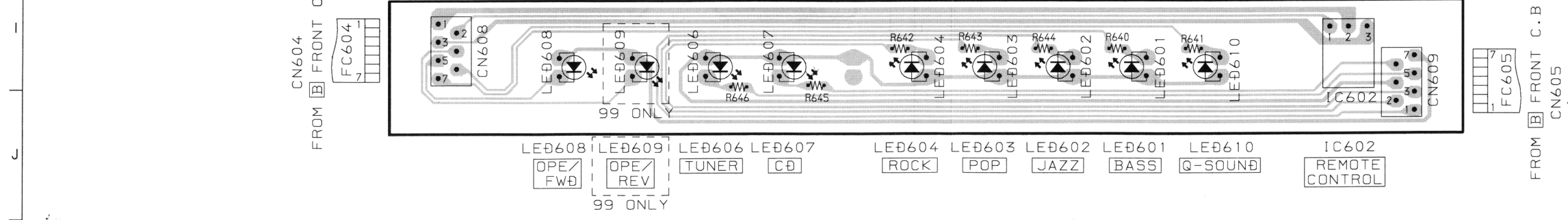
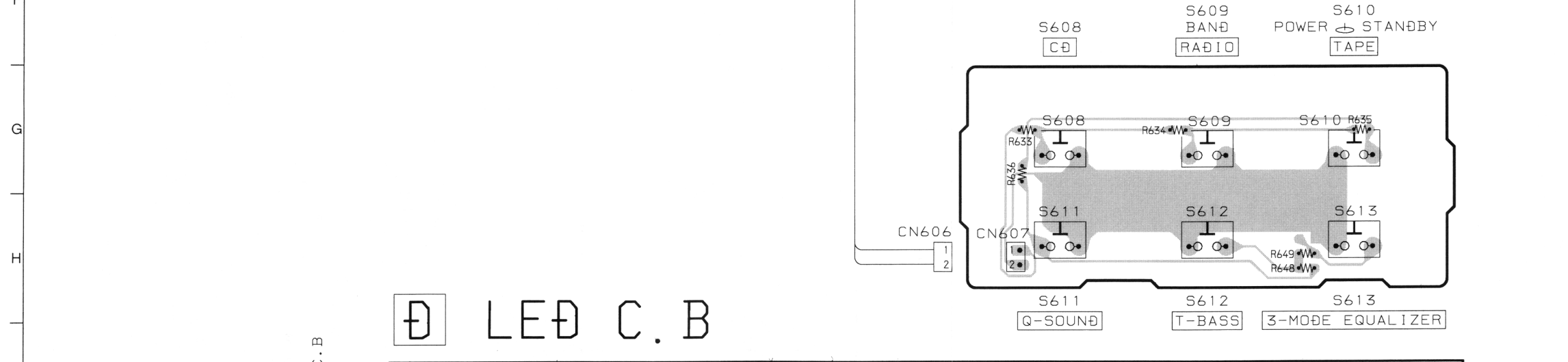
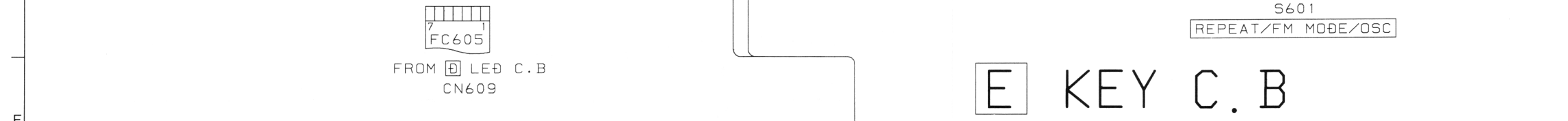
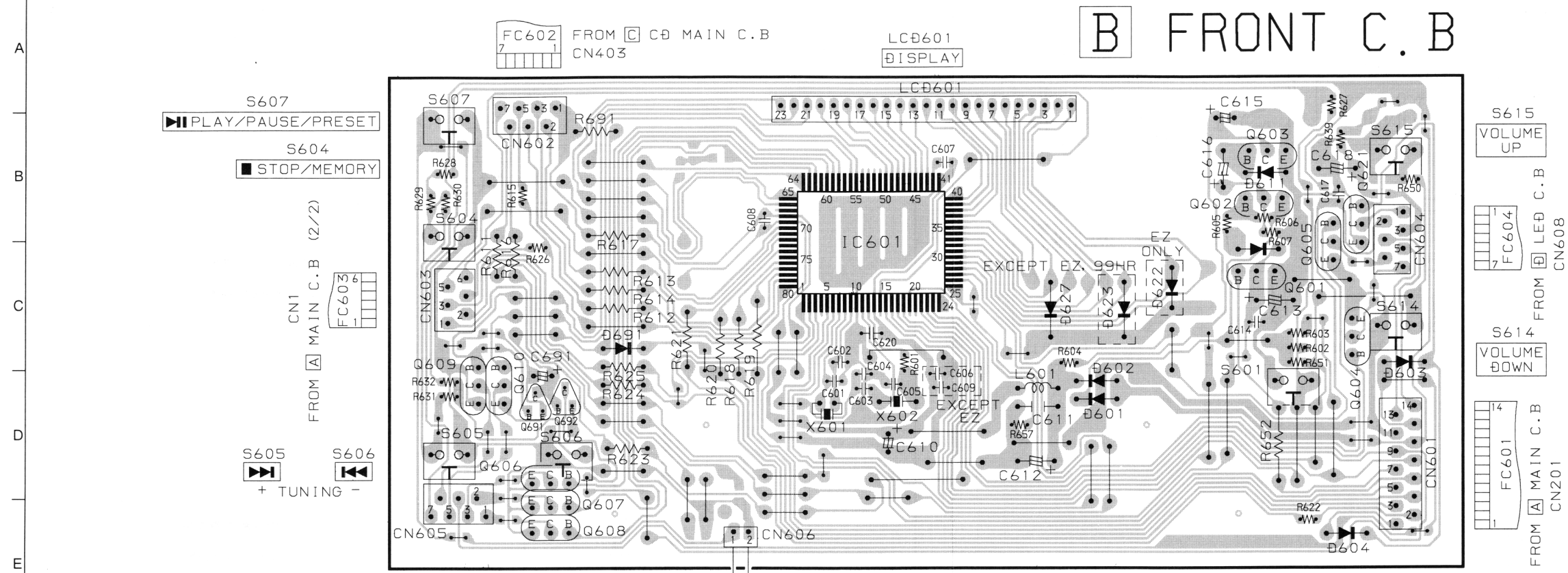
NO.	COM. 1	COM. 2	COM. 3
1	2b	2c	2d
2	1b	1c	1d
3	1a	1f	1e
4	1h	1g	VOL
5	2a	2f	2e
6	2h	2g	2i
7	3f	3e	G
8	3a	3g	3d
9	3b	3c	1
10	4f	4e	M
11	4a	4g	4d
12	4b	4c	X
13	:	• (left)	MONO
14	5f	5e	• (right)
15	5a	5g	5d
16	5b	5c	• (center)
17	6f	6e	STEREO
18	6a	6g	6d
19	6b	6c	5
20	TV	MHz	kHz
21	COM. 1		
22		COM. 2	
23			COM. 3

WIRING – 3 (PT)

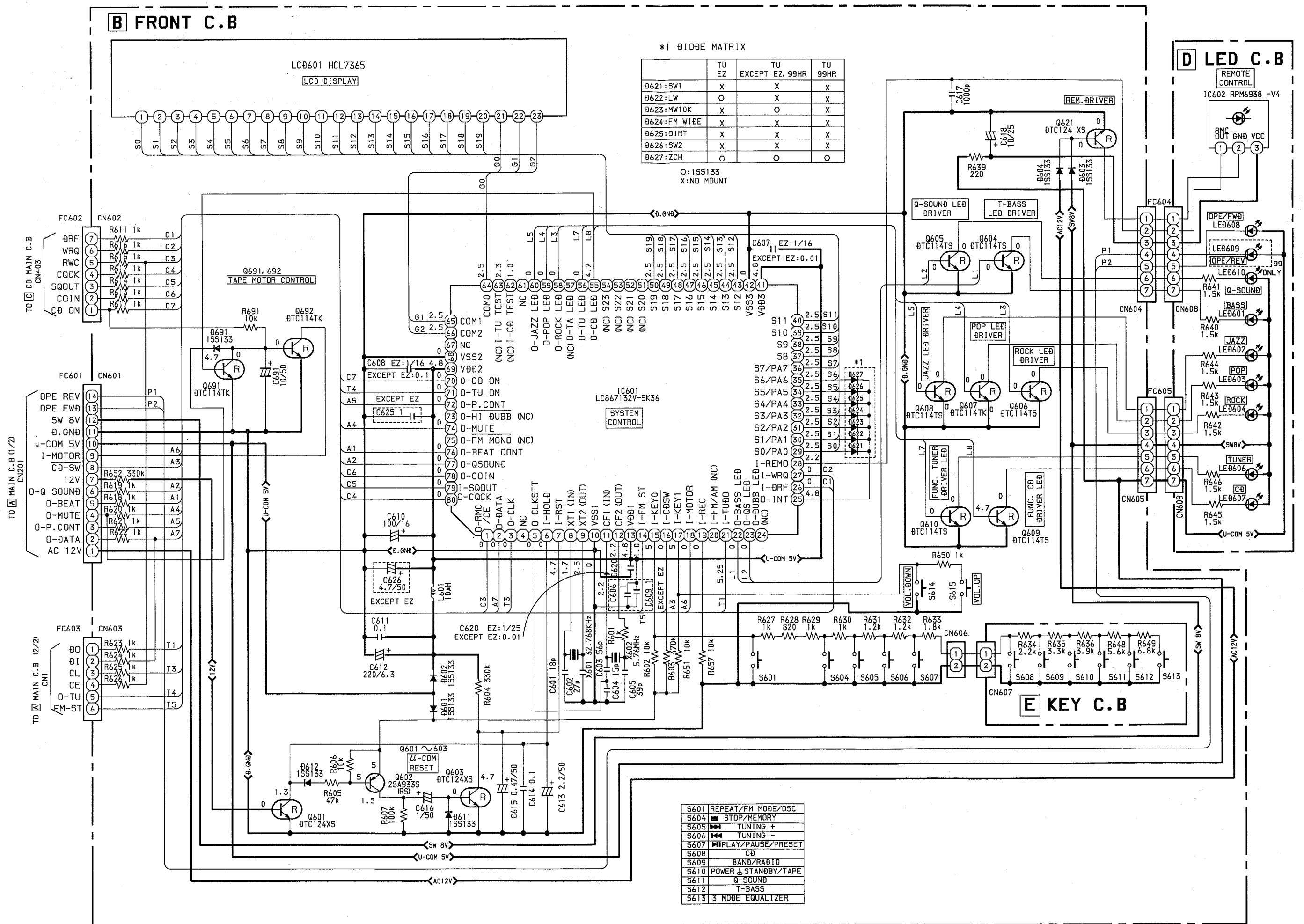


1 2 3 4 5 6 7 8 9 10 11 12 13 14

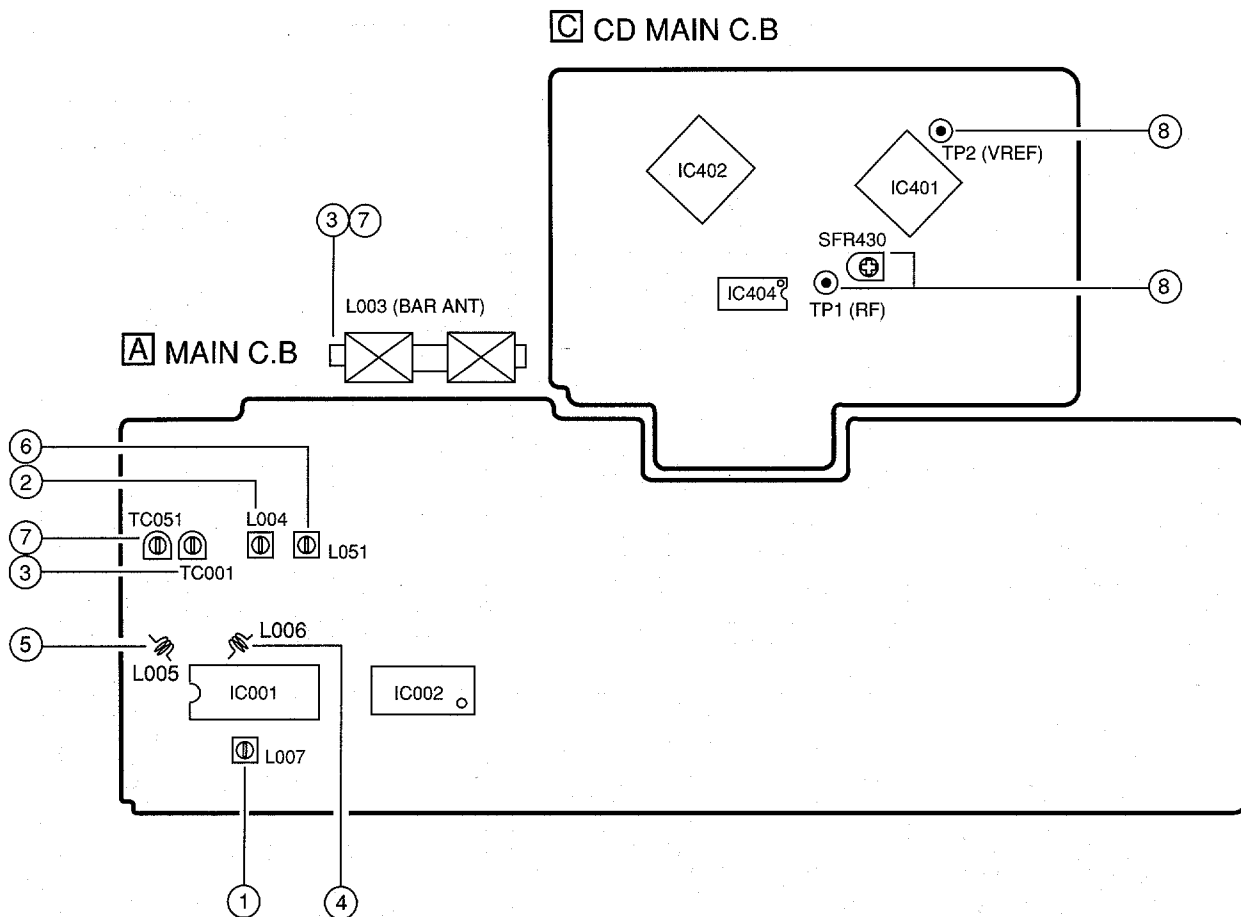
A
B
C
D
E
F
G
H
I
J



SCHEMATIC DIAGRAM - 6 (FRONT)



ADJUSTMENT <TUNER / CD>

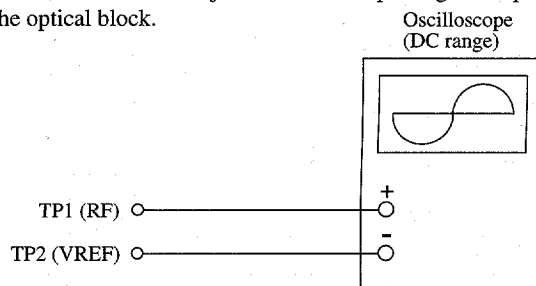


< TUNER SECTION >

1. AM (MW) IF Adjustment
L007 450 kHz
2. AM (MW) VT Adjustment
Settings : • Test point : TP3
 • Adjustment location : L004
Method : Set to AM (MW) 1710kHz (HA, LH), 1602kHz (HR)
 1611kHz (EZ) and adjust L004 so that the test point
 is $6.0 \pm 0.05V$ (HA, LH), $5.6 \pm 0.05V$ (HR, EZ).
3. AM (MW) Tracking Adjustment
L003 600kHz (HA, LH), 603kHz (HR, EZ)
TC001 1400kHz (HA, LH), 1404kHz (HR, EZ)
4. FM VT Adjustment
Settings : • Test point : TP3
 • Adjustment location : L006
Method : Set to FM 108MHz and adjust L006 so that the test
 point is $6.0 \pm 0.05V$.
5. FM Tracking Adjustment
L005 108MHz
6. LW VT Adjustment<EZ>
Settings : • Test point : TP3
 • Adjustment location : L051
Method : Set to LW 288kHz and adjust L051 so that the test
 point is $4.5 \pm 0.05V$.
7. LW Tracking Adjustment<EZ>
L003 153kHz
TC051 288kHz

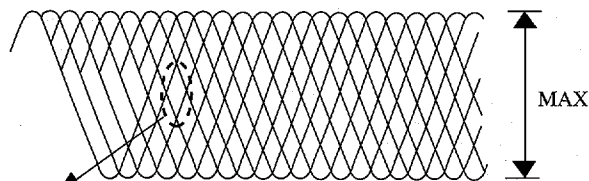
< CD SECTION >

8. Focus Bias Adjustment
Make the focus bias adjustment when replacing and repairing
the optical block.



- 1) Connect an oscilloscope to the test points TP1 (RF) and TP2 (VREF).
- 2) Turn on the power switch.
- 3) Insert test disc TCD-782 (YEDS-18) and play back the
second composition.
- 4) Adjust SFR430 so that RF signal of the test point TP1 (RF)
is MAX and CLEAREST.

RF signal waveform



EYE PATTERN

Must be CLEAR and MAX

VOLT / DIV: 50mV
TIME / DIV: 0.5μs

PRACTICAL SERVICE FIGURE

<TUNER SECTION>

<FM SECTION>

IHF Sensitivity : Less than 18dB
 (THD 3%) [at 87.5 / 98 / 108MHz]
 Signal to noise ratio : Mono : More than 66dB
 Stereo : More than 58dB
 [at 98MHz]
 Distortion : Less than 3% [at 98MHz]
 Auto stop level : 24dB \pm 10dB
 [at 87.5 / 98 / 108MHz]
 Stereo separation : More than 20dB [at 98MHz]
 Intermediate frequency : 10.7MHz

<AM(MW) SECTION>

Sensitivity : Less than 48dB
 S/N (10dB) [at 600kHz]
 Less than 46dB
 [at 1000kHz]
 Less than 44dB
 [at 1400kHz]
 Signal to noise ratio : More than 30dB
 [at 600 / 1000 / 1400kHz]
 Distortion : Less than 3%
 [at 1000kHz]
 Auto stop level : Less than 70dB
 [at 600kHz]
 Less than 65dB
 [at 1000kHz]
 Less than 60dB
 [at 1400kHz]
 Intermediate frequency : 450kHz

<LW SECTION> (EZ)

Sensitivity : Less than 60dB [at 153kHz]
 (S/N 10dB) Less than 58dB at [198kHz]
 Less than 56dB [at 288kHz]
 Signal to noise ratio : More than 30dB
 [at 153 / 198 / 288kHz]
 Distortion : Less than 3% [at 198MHz]
 Auto stop level : Less than 80 / 75 / 70dB
 [at 153 / 198 / 288kHz]
 Intermediate frequency : 450kHz

<DECK SECTION>

Tape speed : 3000Hz +90 / -60Hz (TN-21ZVC-1816)
 3000Hz \pm 90Hz (TN-51RV-240)
 Wow & flutter : Less than 0.4% (R.M.S)
 Take-up torque : 30 ~ 60g-cm (FWD) (TN-21ZVC-1816)
 20 ~ 60g-cm (FWD) (TN-51RV-240)
 F.F & REW torque : 55 ~ 140g-cm (TN-21ZVC-1816)
 55 ~ 120g-cm (TN-51RV-240)
 Distortion : Less than 3% (PB, 1kHz, DC)
 Less than 5% (REC/PB, 1kHz, DC)
 S/N ratio : More than 35dB (PB, AC, DC)
 More than 25dB (REC/PB, AC, DC)
 Max Noise level : Less than 45mV (PB, DC, AC, VOL
 MAX)
 Min Noise level : Less than 1mV (PB, DC, VOL MIN)
 Less than 1.2mV (PB, AC, VOL MIN)
 Erasing ratio : More than 45dB
 Test tape : TTA-100
 TTA-210
 TTA-782
 TTA-602 (NORMAL)

IC DESCRIPTION

IC, LC867132V-5K36

Pin No.	Pin Name	I/O	Description
1	O-RMC/CE	O	CD read/write control output and TU CE.
2	O-DATA	O	Data output to LC72121M, M62495FP.
3	O-CLK	O	Output LC72121M CLK.
4	NC	—	Not Connected.
5	O-CK SFT	O	Clock shift output of the microcomputer.
6	I-HOLD	I	Hold status detection.
7	I-RST	I	Microcomputer reset.
8	XT1 (IN)	I	Connected to 32.768KHZ crystal oscillator.
9	XT2 (OUT)	O	
10	VSS1	—	GND.
11	CF1 (IN)	I	Connected to 6MHZ Ceramic Filter.
12	CF2 (OUT)	O	
13	VDD1	—	Power supply for microcomputer (+5V).
14	I-FM ST	I	FM STEREO status input.
15	I-KEYO	I	KEY AD input.
16	I-CD SW	I	CD DOOR SW status detection input.
17	I-KEY1	I	KEY AD input.
18	I-MOTOR	I	DECK MECHA MOTOR status input.
19	I-REC	I	REC status input.
20	I-FM/AM (NC)	I	FM, AM status input. (Not connected)
21	I-TU DO	I	Data input from LC72121M.
22	O-BASS LED	O	BASS LED ON/OFF control output.
23	O-QS LED	O	Q-Sound LED ON/OFF control output.
24	O-DUBB LED (NC)	O	LED control output used for high-speed dubbing. (Not connected)
25	O-INT	O	INT DIODE MATRIX detection output.
26	I-DRF	I	CD RF level detection input.
27	I-WRQ	I	CD sub-code Q standby input.
28	I-REMO	I	Remote control input.
29	SO-PAO	O	LCD segment output and initial settings output. (SW)
30	S1/PA1	O	LCD segment output and initial settings output. (LW)
31	S2/PA2	O	LCD segment output and initial settings output. (MW 10K)
32	S3/PA3	O	LCD segment output and initial settings output. (FM WIDE)
33	S4/PA4	O	LCD segment output and initial settings output. (OIRT)
34	S5/PA5	O	LCD segment output and initial settings output. (SW2)
35	S6/PA6	O	LCD segment output and initial settings output. (ZCH)
36	S7/PA7	O	LCD segment output and initial settings output.
37~40	S8~S11	O	
41	VDD3	—	Power supply for microcomputer (+5V).
42	VSS3	—	GND.
43~50	S12~S19	O	LCD segment output.
51~54	S20~S23 (NC)	O	LCD segment output. (Not Connected)
55	O-CD LED	O	LED ON/OFF control output for CD functions.

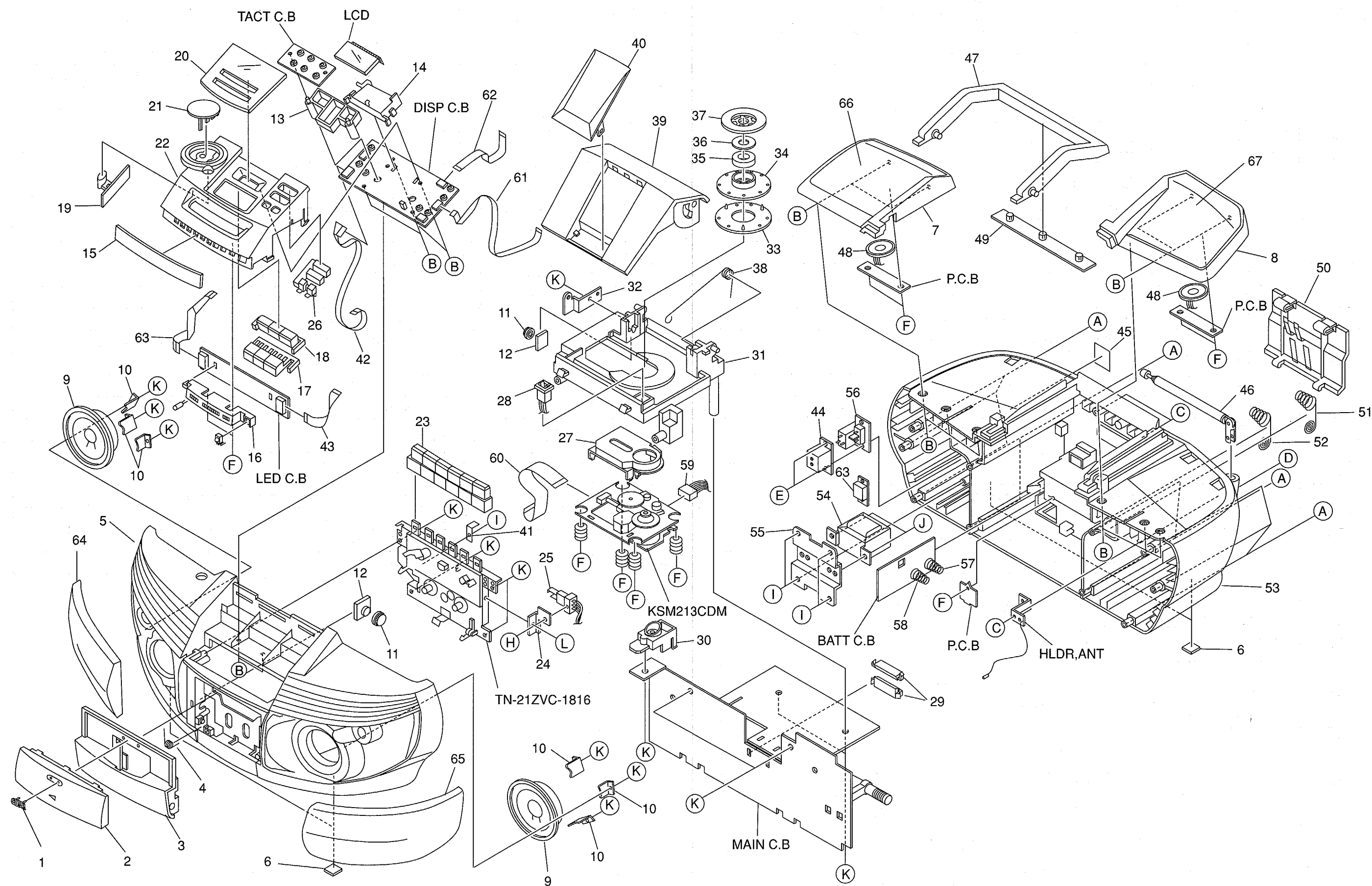
Pin No.	Pin Name	I/O	Description
56	O-TU LED	O	LED ON/OFF control output for TU functions.
57	O-TA LED (NC)	O	LED ON/OFF control output for TAPE functions. (Not Connected)
58	O-ROCK LED	O	LED ON/OFF control output for ROCK.
59	O-POP LED	O	LED ON/OFF control output for POP.
60	O-JAZZ LED	O	LED ON/OFF control output for JAZZ.
61	NC	–	Not connected.
62	I-CD TEST (NC)	I	
63	I-TU TEST (NC)	I	
64~66	COM0~COM2	O	LCD common output.
67	NC	–	Not connected.
68	VSS2	–	GND.
69	VDD2	–	Power supply for microcomputer (+5V).
70	O-CD ON	O	CD PWR control output.
71	O-TU ON	O	TU PWR control output.
72	O-P.CONT	O	Power supply control output.
73	O-HI DUBB (NC)	O	Dubbing speed control output. (Not connected)
74	O-MUTE	O	Main mute output.
75	O-FM MONO (NC)	O	FM force control MONO output. (Not connected)
76	O-BEAT CONT	O	BEAT switch over output.
77	O-QSOUND	O	Q-Sound ON/OFF output.
78	O-COIN	O	CD command output.
79	I-SQOUT	I	CD sub-code Q input.
80	O-CQCK	O	CLK for CD commands/sub-codes.

Pin No.	Pin Name	I/O	Description
1	DEFI	I	Defect detection signal (DEF) input terminal.
2	TAI	I	A pull-down resistor is built in. (Connected to 0V)
3	PDO	O	External VCO control phase comparator output.
4	VVSS	–	Connected to internal VCO of PLL. (Connected to 0V)
5	ISSET	I	PDO output current adjustment resistor connection.
6	VVDD	–	Voltage terminal for internal VCO of PLL.
7	FR	I	VCO frequency range adjustment.
8	VSS	–	Digital system ground. (Connected to 0V)
9	EFMO	O	EFM signal output pin.
10	EFMIN	I	EFM signal input pin.
11	T2	I	Test pin. (Connected to 0V)
12	CLV+	O	Disc motor control output.
13	CLV–		
14	V/P	O	Rough servo/phase control automatic switching monitor output. Rough servo at "H". Phase control at "L".
15	HFL	I	Track detection signal input.
16	TES	I	Tracking error signal input.
17	TOFF	O	Tracking off output.
18	TGL	O	Tracking gain switching output.
19	JP+	O	Track jump output.
20	JP–		
21	PCK	O	EFM data playback monitor. Outputs 4.3218MHz when the phase is locked. (Not used)
22	FSEQ	O	Synchronization signal detection output. Outputs a "H" level when the synchronization signal detected from EFM signal and internally generated synchronization signal range.(Not used)
23	VDD	–	Digital system power supply.
24	SL+	O	Serial data command sled signal output terminal from microprocessor.
25	SL–		
26	NC	–	Not used.
27	PU IN	I	CD pickup inside limit switch. (Not used)
28	NC	–	Not used.
29	EMPH	O	De-emphasis monitor pin. A "H" level indicates playback of a de-emphasis disc. (Not used)
30	C2F	O	C2 flag output. (Not used)
31	DOUT	O	Digital output (EIAJ format). (Not used)
32	T3	I	Test input. (Connected to 0V)
33	T4	I	Test input. (Connected to 0V)
34	NC	–	Not used.
35	MUTEL	O	Left channel mute output. (Not used)
36	LVDD	–	Left channel power supply.
37	LCHO	O	Left channel output.

Pin No.	Pin Name	I/O	Description
38	LVSS	–	Left channel ground.
39	RVSS	–	Right channel ground.
40	RCHO	O	Right channel output.
41	RVDD	–	Right channel power supply.
42	MUTER	O	Right channel mute output. (Not used)
43	XVDD	–	Crystal oscillator power supply.
44	XOUT	O	Connections for a 16.9344MHz crystal oscillator element.
45	XIN	I	
46	XVSS	–	Crystal oscillator ground.
47	SBSY	O	Subcode block synchronization signal. (Not used)
48	EFLG	O	C1, C2 single and double error correction monitor pin. (Not used)
49	PW	O	Subcode P,Q,R,S,T,U and W output. (Not used)
50	SFSY	O	Subcode frame synchronization signal output. (Not used)
51	SBCK	I	Subcode readout clock input. (Connected to 0V)
52	FSX	O	Output for the 7.35kHz synchronization signal divided from the crystal oscillator. (Not used)
53	WRQ	O	Subcode Q output standby output.
54	RWC	I	Read/Write control input.
55	SQOUT	O	Subcode Q output.
56	COIN	I	Command input from the control microprocessor.
57	$\overline{\text{CQCK}}$	I	Input for command input acquisition clock and SQOUT pin subcode readout clock.
58	RES	I	Chip reset input.
59	T11	O	Test output. Leave open. (Not used)
60	16M	O	16.9344MHz output. (Not used)
61	4.2M	O	4.2336MHz output.
62	T5	I	Test input. (Connected to 0V)
63	$\overline{\text{CS}}$	I	Chip select input. (Connected to 0V)
64	T1	I	Test input. (Connected to 0V)

Pin No.	Pin Name	I/O	Description
1	FIN2	I	Connected to pickup photo-diode. Adding with FIN1 pin generates RF signal, and subtracting from FIN1 generates FE signal.
2	FIN1	I	Connected to pickup photo-diode.
3	E	I	Connected to pickup photo-diode. Subtracting from F pin generates TE signal.
4	F	I	Connected to pickup photo-diode.
5	TB	I	Input DC components of TE signal.
6	TE–	O	Connected to TE pin with resistor set TE signal gain.
7	TE	O	Output TE signal.
8	TESI	I	Input TES (TRACK ERROR SENSE) comparator. Band pass and input TE signal.
9	SCI	I	Input shock detection.
10	TH	I	Establish tracking gain value.
11	TA	O	TA amplifier output.
12	TD–	I	Compose tracking phase compensation value between TD and VR pins.
13	TD	O	Used for tracking phase compensation setting.
14	JP	I	Establish amplitude of tracking jump signal (kick pulse).
15	TO	O	Output tracking control signal.
16	FD	O	Output focusing control signal.
17	FD–	I	Compose focusing phase compensation value between FD and FA pins.
18	FA	O	Compose focusing phase compensation value between FD– and FA– pins.
19	FA–	I	Compose focusing phase compensation value between FA and FE pins.
20	FE	O	Output FE signal.
21	FE–	I	Connected to FE pin with resistor set FE signal gain.
22	AGND	–	Analog GND.
23	SP	O	Output single-end for CV+ and CV– pins input signal.
24	SPI	I	Spindle amplifier input.
25	SPG	I	Connect resistor for gain setting at spindle 12cm mode. (Not used)
26	SP–	I	Connect spindle phase compensation value with SPD pin.
27	SPD	O	Output spindle control signal.
28	SLEQ	I	Connect sled phase compensation value.
29	SLD	O	Output sled control signal.
30	SL–	I	Input sled sending signal from DSP.
31	SL+		
32	JP–	I	Input tracking jump signal from DSP.
33	JP+		
34	TGL	I	Input tracking gain control signal from DSP. TGL = "H" : Gain low.
35	TOFF	I	Input tracking off control signal from DSP. TOFF = "H" : Off.
36	TES	O	Output TES signal to DSP.
37	HFL	O	HIGH FREQUENCY LEVEL: Detects whether main-beam is on pit or mirror position.
38	SLOF	I	Input sled servo off control.
39	CV–	I	Input CLV error signal from DSP.
40	CV+		

Pin No.	Pin Name	I/O	Description
41	RFSM	O	Output RF.
42	RFS-	O	Establish RF gain and 3T compensation value from EFM signal with RFSM pin.
43	SLC	O	SLICE LEVEL CONTROL: Control data slice level by DSP with RF waveform.
44	SLI	I	Control data slice level by DSP.
45	DGND	-	Digital GND.
46	FSC	O	Connected to focus search smoothing capacitor.
47	TBC	I	TRACKING BALANCE CONTROL: Establish EF balance variable range.
48	NC	-	Not used.
49	DEF	O	Output disc defect detection.
50	CLK	I	Input reference clock. Inputs 4.23MHz from DSP.
51	CL	I	Input microcomputer command clock.
52	DAT	I	Input microcomputer command data.
53	CE	I	Input microcomputer command chip enable.
54	DRF	O	Detect RF: Output RF level detection.
55	FSS	I	FOCUS SEARCH SELECT: Switches focus search mode (between \pm search and + search against reference voltage). (Not used)
56	VCC2	-	Servo/digital VCC.
57	REF1	-	Connected to reference voltage bypass condenser.
58	VR	O	Output reference voltage.
59	LF2	-	Establish value in detecting disc defect.
60	PHI	-	Connected to capacitor used to hold peak of RF signal.
61	BHI	-	Connected to capacitor used to hold bottom of RF signal.
62	LDD	O	APC-circuit output pin.
63	LDS	I	APC-circuit input pin.
64	VCC1	-	RF VCC.



MECHANICAL PARTS LIST 1 / 1

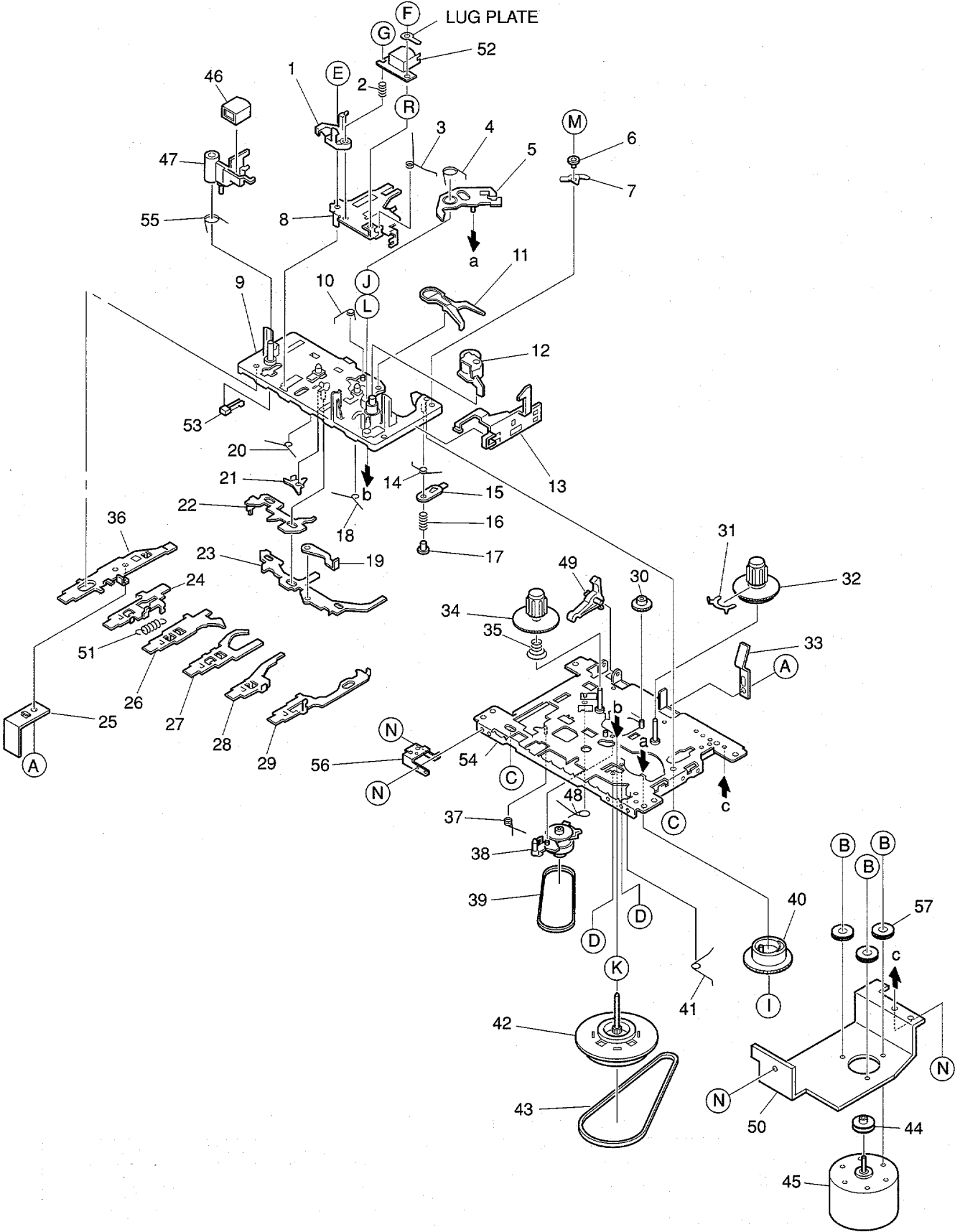
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-B00-020-010		BADGE, AIWA 30 GOLD	43	8Z-CH4-620-010		FF-CABLE, 7P FR-LED
2	8Z-CH4-007-010		WINDOW, CASS<EXCEPT 99HR, 99EZ>	44	87-A90-086-010		COVER, AC-SOCKET
2	8Z-CHR-003-010		WINDOW, CASS 24<99HR, 99EZ>	45	87-CD6-041-010		PLATE, AC<89EZ, 99EZ>
3	8Z-CHE-003-010		BOX, CASS 14<EXCEPT 99HR, 99EZ>	46	8Z-CH4-640-010		ANT, ROD
3	8Z-CHR-009-010		BOX, CASS 24<99HR, 99EZ>	47	8Z-CH4-009-010		HANDL, ARM
4	8Z-CH4-205-010		SPR-T, CASS	48	8Z-CH4-645-010		SPKR, MAYLOR 80HM SILVER
5	8Z-CHE-002-010		CABI, FR 14A<EXCEPT 99HR, 99EZ>	49	8Z-CH4-010-010		HANDL, GRIP
5	8Z-CHR-002-010		CABI, FR 24A<99HR, 99EZ>	50	8Z-CH4-008-010		LID, BATT
6	86-CT4-218-010		CUSHION, FOOT/PORON	51	87-CD6-223-010		SPR-C, BATT LINK L
7	8Z-CH4-019-110		CABI, TOP 2L	52	87-CD6-214-010		SPR-C, BATT LINK
8	8Z-CH4-020-110		CABI, TOP 2R	53	8Z-CHE-032-010		CABI, REAR LH
9	88-CD5-602-010		SPKR 4'3.2<EXCEPT 89EZ, 99EZ>	54	88-CH6-627-010		PT, E<89EZ, 99EZ>
9	88-CD5-603-010		SPKR, 10 70HM<89EZ, 99EZ>	54	88-CH6-628-010		PT, H<EXCEPT 89EZ, 99EZ>
10	8Z-CH4-204-010		HLD, SPEAKER	55	8Z-CH4-209-010		HLD, PT<EXCEPT 99HR, 99EZ>
11	84-CD5-215-010		GEAR	55	8Z-CH4-220-010		HLD, PT B<99HR, 99EZ>
12	84-CD5-216-010		BRACKET	56	87-A60-178-010		JACK, AC E W/SW
13	8Z-CH4-216-010		HLD, FUNC-PWB	57	87-CD6-222-010		SPR-C, BATT (-) L
14	8Z-CH4-201-010		HLD, LCD	58	87-CD6-213-010		SPR-C, BATT (-)
15	8Z-CHE-018-010		WINDOW, LED 14A<89HR, 89EZ>	59	8Z-CH4-614-010		CONN ASSY, 6P CD-ME
15	8Z-CHE-006-010		WINDOW, LED 14LH<89LH, 89HA>	60	8Z-CH4-618-010		FF-CABLE, 16P CD-RF
15	8Z-CHR-017-010		WINDOW, LED 24A<99HR, 99EZ>	61	8Z-CH4-621-010		FF-CABLE, 7P CD-FR
16	8Z-CH4-210-010		HLD, LED	62	8Z-CH4-619-010		FF-CABLE, 14P AF-FR
17	8Z-CH4-027-010		BTN, EQ	63	87-A91-369-010		SW, AC SL 2 2 2 SDKGA41700<EXCEPT EZ>
18	8Z-CH4-026-010		BTN, FUNC	64	8Z-CHE-014-010		GRILLE, FR L 14<EXCEPT 99HR, 99EZ>
19	8Z-CH4-025-010		BTN, REPEAT	64	8Z-CHR-013-010		GRILLE, FR L 24<99HR, 99EZ>
20	8Z-CHE-011-010		WINDOW, LCD<89HR, 89LH, 89HA>	65	8Z-CHE-015-010		GRILLE, FR R 14<EXCEPT 99HR, 99EZ>
20	8Z-CHE-012-010		WINDOW, LCD 14EZ<89EZ>	65	8Z-CHR-014-010		GRILLE, FR R 24<99HR, 99EZ>
20	8Z-CHR-010-010		WINDOW, LCD 24<99HR>	66	8Z-CHE-016-010		GRILLE, TOP L 14<EXCEPT ED99>
20	8Z-CHR-011-010		WINDOW, LCD 24EZ<99EZ>	66	8Z-CHR-015-010		GRILLE, TOP L 24<99HR, 99EZ>
21	8Z-CH4-023-110		BTN, VOL	67	8Z-CHE-017-010		GRILLE, TOP R 14<EXCEPT ED99>
22	8Z-CHE-009-010		PANEL, LCD<EXCEPT 99HR, 99EZ>	67	8Z-CHR-016-010		GRILLE, TOP R 24<99HR, 99EZ>
22	8Z-CH4-014-010		PANEL, LCD51<99HR, 99EZ>	A	87-B10-242-010		UT2+3-30 W/O CR
23	8Z-CH4-028-010		KEY, CASS 21<EXCEPT 99HR, 99EZ>	B	87-B10-239-010		QT2+3-8 W/O CR
23	8Z-CH4-029-010		KEY, CASS 51<99HR, 99EZ>	C	87-644-096-410		UT1+3-10 CR
24	8Z-CH4-214-010		HLD, REC-SW 21<EXCEPT 99HR, 99EZ>	D	87-254-097-410		U+3-12 CR
24	8Z-CH4-215-010		HLD, REC-SW 51<99HR, 99EZ>	E	87-751-075-410		VT2+2.6-10
25	87-A91-151-010		SW, LEAF 1P2T/TC48-021	F	87-342-074-010		UT2+2.6-8
26	8Z-CH4-024-010		BTN, CD	G	87-751-094-410		VT2+3-6 W10SL0T
27	88-CH6-019-010		PANEL, CD	H	87-261-037-410		V+2-10 GLD
28	87-036-389-010		SW, PUSH LOCK	I	87-661-100-410		VFT1+3-16
29	8Z-CH4-208-010		HLD, PWB	J	87-067-566-010		TAPPING SCREW, VFTT+3-6
30	8Z-CH4-030-110		COVER, PH	K	87-741-095-410		UT2+3-8 GLD
31	8Z-CH4-003-010		CHAS, CD	L	87-571-032-410		VIT+2-3
32	8Z-CH4-207-010		HLD, OIL-DMPR				
33	8Z-CH4-212-010		RING, CHUCK				
34	8Z-CH4-211-010		BASE, CHUCK				
35	87-036-368-010		MAGNET				
36	84-CD5-217-010		PLATE, MAGNET				
37	85-CD7-217-010		HLD, CHUCK A				
38	8Z-CH4-206-010		SPR-T, CD				
39	8Z-CHE-008-010		BOX, CD<EXCEPT 99HR, 99EZ>				
39	8Z-CHR-008-010		BOX, CD 24<99HR, 99EZ>				
40	8Z-CH4-005-010		WINDOW, CD				
41	8Z-CH4-213-010		SPR-P, REC-SW 21				
42	8Z-CH4-622-010		FF-CABLE, 6P TU-FR				

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange		

TAPE MECHANISM EXPLODED VIEW 1 / 1 <CSD-ED88/89 TN21ZVC-1816>

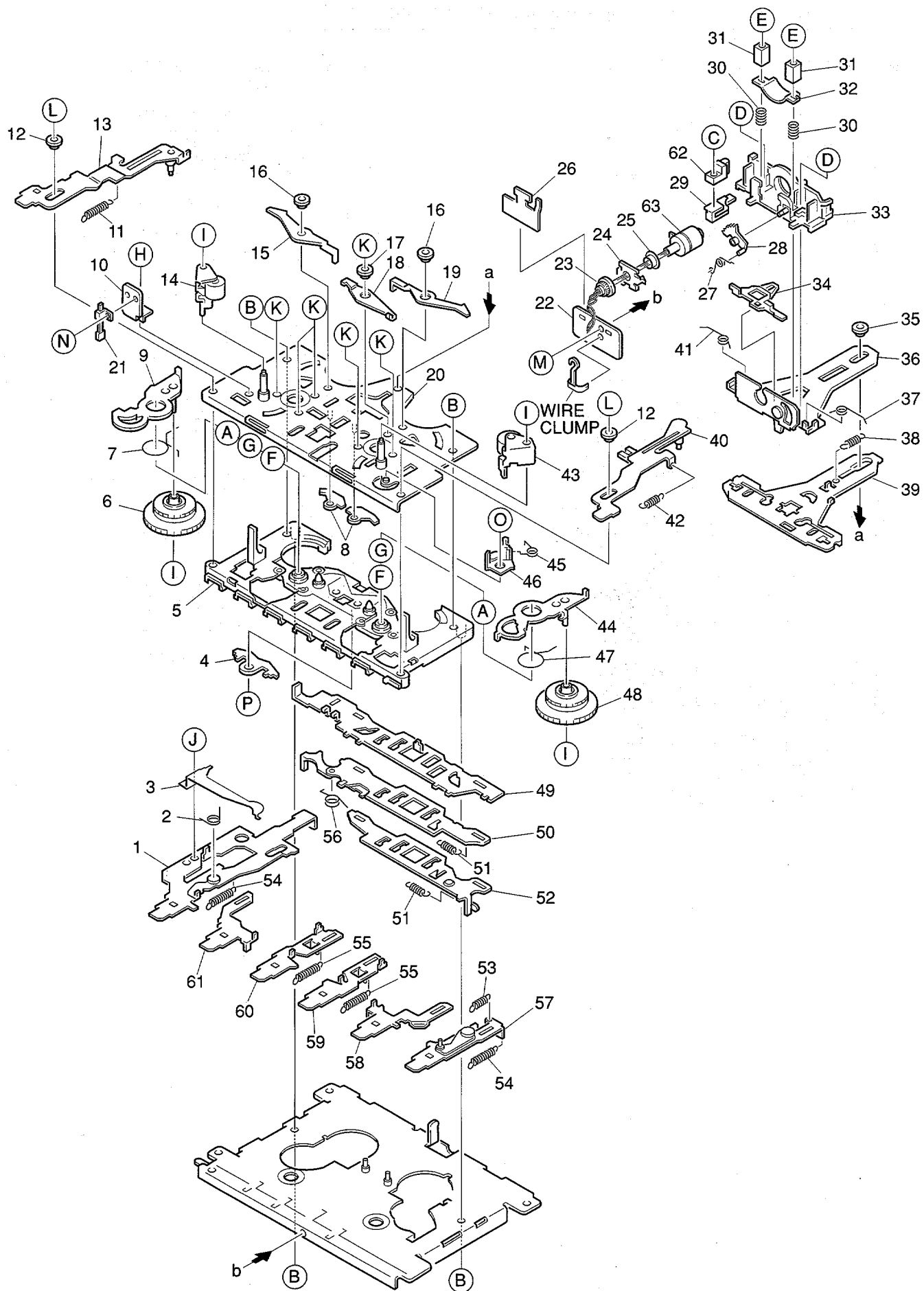


TAPE MECHANISIM PARTS LIST 1 / 1 <CSD-ED88/89 TN21ZVC-1816>

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF.NO.	PART NO.	KANRI NO.	DESCRIPTION	REF.NO.	PART NO.	KANRI NO.	DESCRIPTION
1	S1-921-030-4A0		HEAD BASE	41	S1-921-140-160		E ACTUATOR SPRING
2	S1-821-030-070		AZIMUTH SPRING	42	S1-921-093-030		FLYWHEEL ASSY
3	S1-921-030-090		PANEL P SPRING	43	S1-921-090-040		MAIN BBELT
4	S1-921-260-050		GEAR PLATE SPRING	44	S1-921-120-010		MOTOR PULLEY
5	S1-921-265-020		GEAR PLATE ASSY	45	S6-002-030-220		MOTOR EG530AD-2B
6	S1-921-140-370		P ARM COLLER	46	S6-209-100-100		E HEAD PH-K380-MS1
7	S1-921-140-340		P ARM	47	S1-921-030-050		MG ARM
8	S1-921-030-110		HEAD PANEL	48	S1-921-140-210		REC BUTTON LEVER SPRING
9	S1-921-143-160		BASE ASSY	49	S1-821-100-690		RECORD SAFETY LEVER
10	S1-921-141-8A0		M CONTROL SPRING	50	S1-921-120-540		MOTOR BRACKET
11	S1-921-260-4A0		SENSING LEVER	51	S1-821-010-500		PLAY BUTTON LEVER SPRING
12	S1-921-043-100		PINCH ROLLER ARM ASSY	52	S6-202-010-920		R.P HEAD MS15R-AKON1
13	S1-921-130-010		EJECT SLIDE LEVER	53	S6-401-011-490		LEAF SW MSW-1541T
14	S1-921-141-3A0		P CONTROL SPRING	54	S1-921-015-010		CHASSIS ASSY
15	S1-921-140-550		PAUSE LEVER(E)	55	S1-921-030-100		MG ARM SPRING
16	S1-921-140-120		PAUSE LEVER SPRING	56	S1-921-010-160		SIDE BRACKET
17	S1-921-140-110		PAUSE STOPPER	57	S1-821-120-660		MOTOR RUBBER
18	S1-921-140-150		BUTTON LEVER SPRING(B)	A	S9-P04-200-310		C TAPPING SCREW 2-3
19	S1-821-011-590		E KICK LEVER	B	S1-851-140-180		MOTOR COLLER SCREW
20	S1-921-140-140		BUTTON LEVER SPRING(A)	C	S9-B10-200-510		P TAPPING BIND SCREW M2-5
21	S1-921-140-200		PR STOPPER	D	S9-C07-204-510		SCREW,TAPPING(CAMERA)M2-4.5
22	S1-921-140-090		SWITCH ACTUATOR	E	S9-P01-200-610		SCREW,M2-6
23	S1-921-140-080		PUSH BUTTON ACTUATOR	F	S9-P01-200-310		SCREW,M2-3
24	S1-921-140-190		PLAY BUTTON LEVER	G	S9-P08-200-710		AZIMUTH SCREW M2-7
25	S1-510-020-020		REC SPRING PLATE	H	S9-P05-200-810		S TAPPING SCREW M2-8
26	S1-921-140-040		REW BUTTON LEVER	I	S9-W02-300-100		P WASHER CUT 1.2-3.8-0.3
27	S1-921-140-050		FF,BUTTON REVER	J	S9-W02-500-100		P WASHER CUT 1.45-3.8-0.5
28	S1-921-140-060		STOP BUTTON LEVER	K	S9-W01-400-100		P WASHER 2-3.5-0.4
29	S1-921-140-600		PAUSE BUTTON LEVER	L	S9-W01-130-200		P WASHER 2.1-4-0.13
30	S1-821-100-700		FF GEAR	M	S9-P08-203-010		PS TAPPING SCREW M2-3
31	S1-921-050-060		SENSOR	N	S9-P04-200-410		C TAPPING SCREW M2-4
32	S1-921-053-030		TAKE UP REEL ASSY				
33	S1-821-100-980		PACK SPRING				
34	S1-921-053-040		SUPPLY REEL ASSY				
35	S1-821-100-990		BACK TENSION SPRING				
36	S1-921-140-030		REC BUTTON LEVER				
37	S1-921-140-170		P.S.LEVER SPRING				
38	S1-921-073-040		RF CLUTCH ASSY				
39	S1-921-070-030		RF BELT				
40	S1-921-260-020		CAM GEAR				

TAPE MECHANISM EXPLODED VIEW 1 / 2 <CSD-ED99 TN51RV-240>

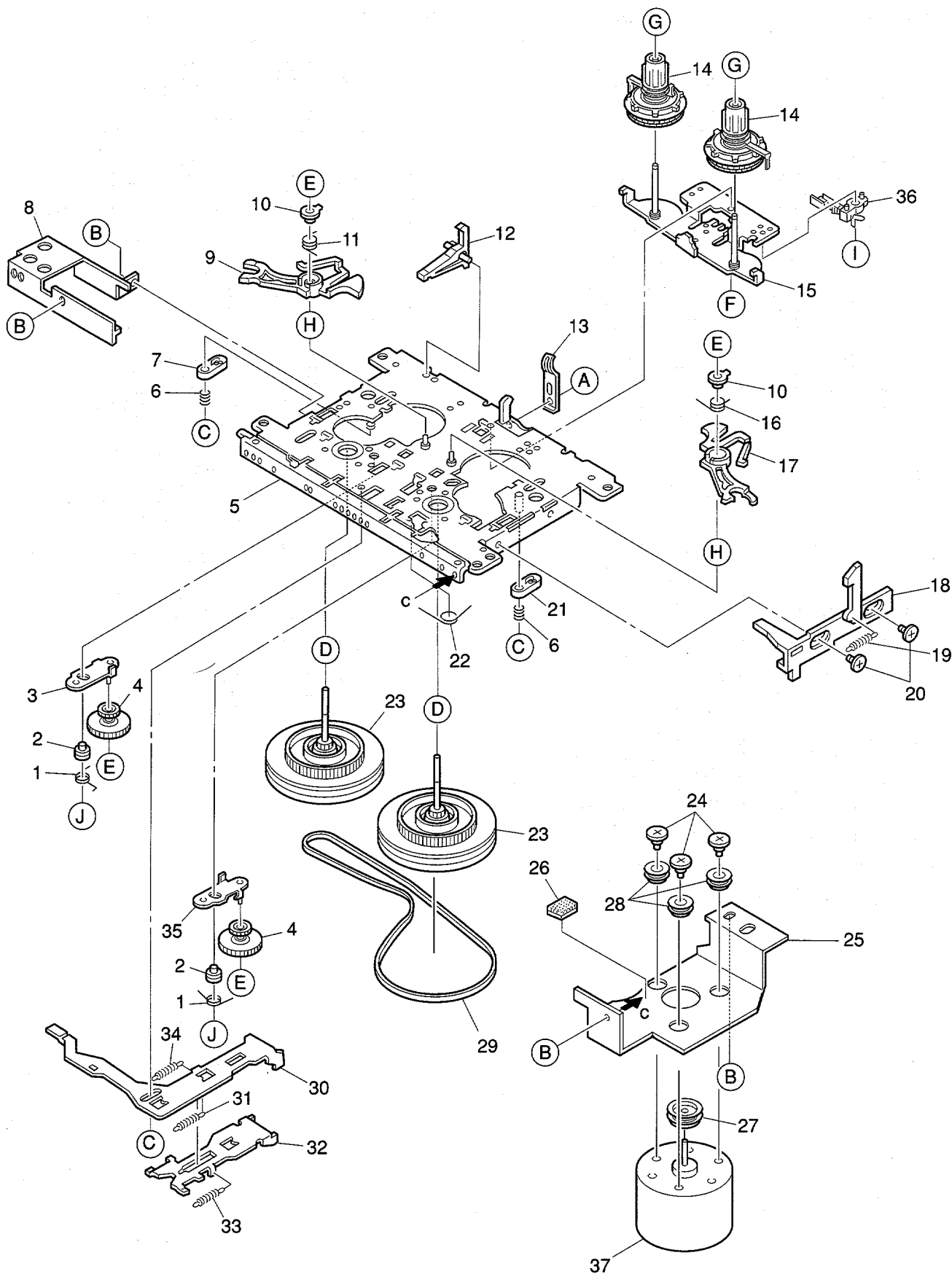


TAPE MECHANISM PARTS LIST 1 / 2 <CSD-ED99 TN51RV-240>

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	S1-851-023-190		REC BUTTON LEVER ASSY	46	S1-851-030-030		TURN OVER ARM
2	S1-851-020-620		E-LOCK ARM SPRING	47	S1-851-050-040		T GEAR ARM(F)SPR
3	S1-851-020-570		E-HEAD ARM	48	S1-851-050-030		T GEAR ARM(F)
4	S1-851-020-410		FF CONTROL ARM	49	S1-851-020-560		SLIDE PLATE
5	S1-851-025-040		BUTTON BASE ASSY	50	S1-851-023-140		LOCK ACTUATOR ASSY
6	S1-851-060-020		T GEAR ARM(R)	51	S1-851-020-670		SW ACTUATOR SPRING
7	S1-851-060-030		T GEAR ARM(R)SPR	52	S1-851-023-150		SW ACTUATOR ASSY
8	S1-851-180-100		RC ARM	53	S1-851-020-270		PULL ARM SPRING
9	S1-851-063-020		T GEAR ARM ASSY (R)ASSY	54	S1-851-020-700		PROGRAM BUTTON LEVER SPRING
10	S1-851-030-050		TURN OVER SW BRACKET	55	S1-851-020-690		FF BUTTON LEVER SPRING
11	S1-851-020-680		MODE BUTTON SPRING	56	S1-851-020-760		LOCK RELEASE SPRING
12	S1-851-020-600		LEVER COLLER	57	S1-851-023-180		PROGRAM BUTTON LEVER ASSY
13	S1-851-023-240		MODE BUTTON LEVER ASSY	58	S1-851-020-570		STOP BUTTON LEVER
14	S1-851-105-020		PINCH ROLLER (R)ASSY	59	S1-851-020-080		FF BUTTON LEVER (F)
15	S1-851-180-060		AUTO CONTROL ARM(R)	60	S1-851-020-090		FF BUTTON LEVER (R)
16	S1-851-180-120		C ARM COLLAR SCREW	61	S1-851-020-670		PLAY BUTTON LEVER
17	S1-851-020-580		PAUSE ARM COLLER	62	S6-205-100-120		E HEAD EM-1636
18	S1-851-180-080		PAUSE ARM	63	S6-205-060-010		RP HEAD RC-889
19	S1-851-180-050		AUTO CONTROL ARM(F)	A	S9-999-000-130		P WASHER 1.75-4-0.3
20	S1-851-183-030		SUB CHASSIS ASSY	B	S9-674-000-000		P TAP SCREW M2-6
21	S6-401-010-990		LEAF SW MSW-1473NBK	C	S9-696-000-000		CAMERAS TAPING SCREW M1.7-4.5
22	S1-851-010-060		HW TERMINAL PLATE	D	S9-695-000-000		CAMERA S TAP SCREW M1.7-
23	S1-851-040-440		PINION GEAR	E	S9-999-200-360		SCREW M2-12 (+/-)
24	S1-851-040-180		HOLDER	F	S9-786-000-000		P WASHER 2-3.5-0.3
25	S1-851-040-270		H HOLDER SPRING	G	S9-999-030-090		P WASHER 1.45-4-0.5
26	S1-851-040-410		H SHIELD PLATE	H	S9-999-130-060		CAMERA S TAPPING SCREW M1.7-2
27	S1-851-040-250		H TURN OVER SPRING	I	S9-421-000-000		P WASHER 1.2-3-0.25
28	S1-851-040-200		H TURN OVER GEAR	J	S9-C19-173-030		TSS 1.7X3
29	S1-851-040-260		E HEAD HOLDER	K	S9-C20-178-510		SCREW,TS 1.7-8.5
30	S1-865-020-590		AZIMUTH SPRING	L	S9-185-000-000		C TAP SCREW M2-10
31	S1-851-040-360		SCREW HOLDER	M	S9-999-200-120		TWO LOCK SCREW M2-4
32	S1-851-040-240		HEAD SPRING PLATE	N	S9-077-000-000		TAMS SCREW M2-4 (+)
33	S1-851-040-390		HEAD MOUNT	O	S9-502-000-000		E RING S2.0
34	S1-851-040-210		HEAD SLIDE PLATE	P	S9-C19-174-030		SCREW,TSS M1.7-4
35	S1-851-040-550		H.P.COLLAR SCREW	Q	S9-999-000-160		P WASHER 2.8-6-0.5
36	S1-851-040-140		HEAD PANEL				
37	S1-851-040-280		PINCH ROLLER SPRING (F)				
38	S1-851-040-090		R.C.PLATE SPRING				
39	S1-851-040-150		R.C. PLATE				
40	S1-851-023-230		PAUSE BUTTON LEVER ASSY				
41	S1-851-040-290		PINCH ROLLER SPRING (R)				
42	S1-800-110-230		PAUSE SPRING				
43	S1-851-095-020		PINCH ROLLER (F)ASSY				
44	S1-851-053-020		T GEAR ARM (F) ASSY				
45	S1-851-030-040	OE	TURN OVER SPRING				

TAPE MECHANISM EXPLODED VIEW 2 / 2 <CSD-ED99 TN51RV-240>

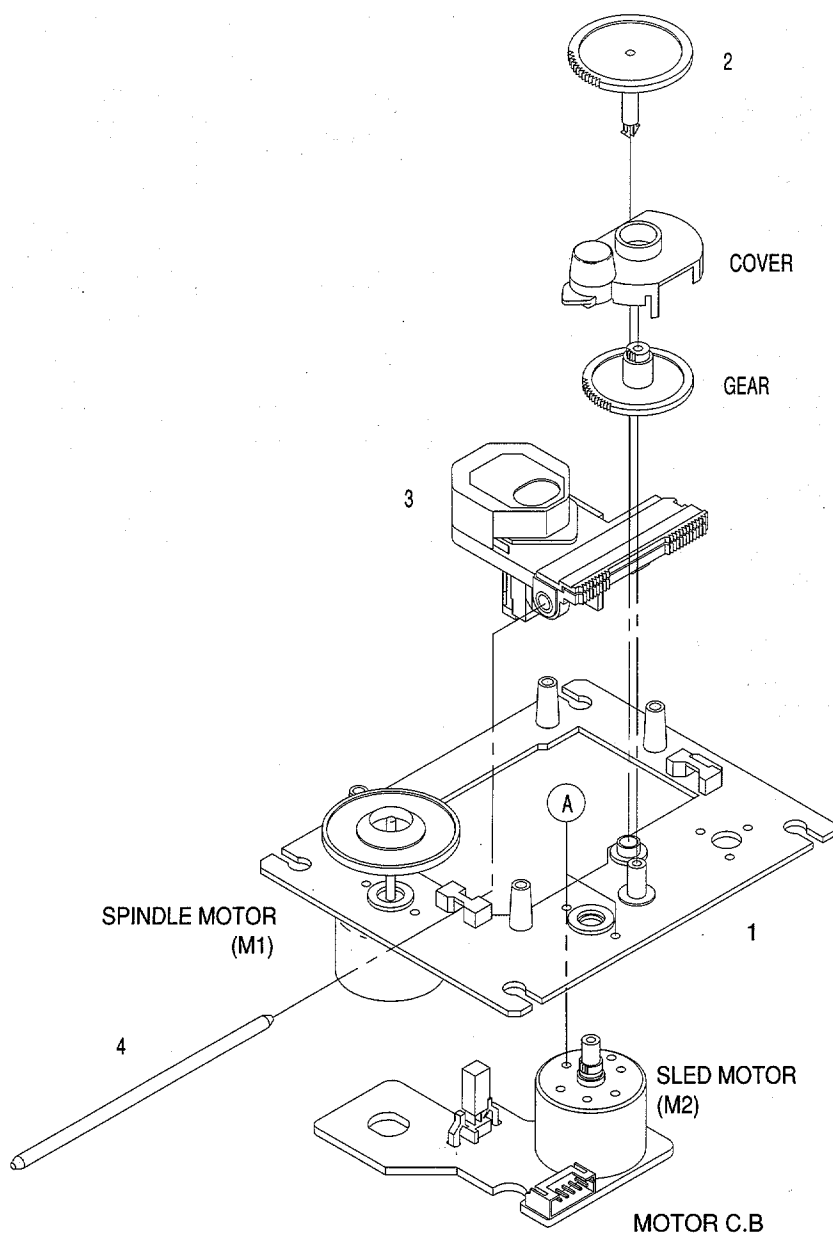


TAPE MECHANISIM PARTS LIST 2 / 2 <CSD-ED99 TN51RV-240>

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	S1-851-070-040		FF GEAR ARM SPR(F)	31	S1-851-040-110		R.C.SPRING (M)
2	S1-851-070-050		FF GEAR ARM COLLAR	32	S1-851-160-020		FF SW PLATE
3	S1-851-083-010		FF GEAR ARM(R)ASSY	33	S1-851-160-060		FF SW PLATE SPRING
4	S1-851-070-030		FF GEAR	34	S1-851-020-420		BUTTON LEVER SPR(P)
5	S1-851-013-050		CHASSIS ASSY	35	S1-851-073-010		FF GEAR ARM(F)ASSY
6	S1-821-010-160		PAUSE LEVER SPR	36	S6-401-011-720		LEAF SW MSW-1290CV
7	S1-851-010-080		PAUSE LEVER	37	S6-002-030-230		MOTOR EG-530AD-2F
8	S1-851-010-070		SIDE BRACKET	38	S6-401-010-440		LEAF SW MSW-0094CNEK
9	S1-851-200-020		AUTO LEVER(R)	A	S9-P33-200-320		DEL TITE SCREW M2-3
10	S1-851-200-050		SPRING STOPPER	B	S9-180-000-000		C TAP SCREW M2-4
11	S1-851-200-030		AUTO LEVER(R)SPR	C	S9-876-000-000		P WASHER 2.1-5-0.5
12	S1-851-010-090		RECORD SAFETY LEVER	D	S9-889-000-000		P WASHER 2.1-3-0.3
13	S1-821-100-980		PACK SPRING PLATE	E	S9-421-000-000		P WASHER 1.2-3-0.25
14	S1-851-115-010		REEL ASSY	F	S9-C19-173-030		TSS 1.7X3
15	S1-851-113-010		REEL PLATE ASSY	G	S9-888-000-000		P WASHER 1.2-3-0.4
16	S1-851-200-040		AUTO LEVER(F)SPR	H	S9-999-000-090		P WASHER 3-8.5-0.13
17	S1-851-200-010		AUTO LEVER(F)	I	S9-181-000-000		C TAP SCREW M2-5 (+)
18	S1-851-170-070		EJECT SLIDE LEVER	J	S9-C19-174-030		SCREW,TSS M1.7-4
19	S1-851-170-020		EJECT SLIDE LEVER SPR				
20	S1-821-120-230		P.K.COLLAR SCREW (A)				
21	S1-821-010-150		PAUSE LEVER				
22	S1-851-020-210		STOP BUTTON LEVER SPR				
23	S1-851-125-050		FLYWHEEL ASSY				
24	S1-821-120-020		M. COLLER SCREW				
25	S1-921-120-540		MOTOR BRACKET				
26	S1-800-100-220		ANTI-VIBRATION FELT				
27	S1-851-140-150		MOTOR PULLEY				
28	S1-820-130-060		MOTOR RUBBER				
29	S1-851-140-170		MAIN BELT				
30	S1-851-040-080		RELEASE PLATE				

CD MECHANISM EXPLODED VIEW 1 / 1





CD MECHANISM PARTS LIST 1 / 1

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	9X-262-620-210		MOTOR CHASSIS ASSY
2	92-626-907-010		GEAR (A)
3	87-A90-468-010		PICK UP KSS-213C
4	92-626-908-010		SHAFT SLED
A	97-621-255-150		SCREW+P2-3

ACCESSORIES / PACKAGE LIST

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-CH4-908-010		IB,EZ(9L)B<EZ>
1	8Z-CHE-907-010		IB,HR(ECA)B<HR>
1	8Z-CHG-906-010		IB,LH(ESP)B<LH1,LH,HA>
	2	87-A80-119-010	AC CORD SET ASSY,AZ<HA>
	2	87-A80-036-010	AC CORD SET ASSY,E W/FLTR VOL<EXCEPT HA>
3	87-A90-312-010		PLUG,CONVERSION WTN-1157R1<EXCEPT EZ>
4	8Z-CK4-962-010		RC UNIT,RC-ZAT04 (VS)

REFERENCE NAME LIST

ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES, NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMER	CAP, TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER

MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
DUBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FUN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HIMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLDR	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOAD MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL

サービス技術ニュース	
番号	連絡内容
G- -	
G- -	
G- -	

アイワ株式会社
AIWA CO., LTD.

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Tokyo Japan